

DIVISION V – INCIDENTAL CONSTRUCTION

SPECIAL PROVISION COPIED NOTES (SPCNs), SPECIAL PROVISION (SPs) and SUPPLEMENTAL SPECIFICATIONS (SSs)

VDOT web file users (“pdf”) may obtain more information and other resources by downloading the accompanying “zip” file (compressed WORD® files).

<http://www.virginiadot.org/business/resources/const/07ImpRev.zip>

These sheets may also be found at the following locations:

Global Web Access: <http://www.virginiadot.org/business/const/spec-default.asp>

VDOT Only Access: http://insidevdot/sites/SanC/specs/2007specs/2007_Standard_Specifications/Forms/AllItems.aspx

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——**STANDARD 500 SERIES SPCNs (SPECIAL PROVISION COPIED NOTES)**——

GUIDELINES — FOR PROJECTS REQUIRING EXPOSED AGGREGATE FINISH FOR SOUNDWALLS, SIDEWALKS, CURB CUT RAMPS, CURBS AND/OR PARAPETS. WHEN THIS PROVISION APPLIES INCLUDE THE FOLLOWING IN THE PROPOSAL: and . WHEN THIS PROVISION APPLIES AND HYDRAULIC CEMENT CONCRETE ADMIXTURES ARE REQUIRED INCLUDE THE FOLLOWING IN THE PROPOSAL: .

(c504c00-0708)

EXPOSED AGGREGATE FINISH shall be performed by wirebrushing, blasting or surface retarder unless another method is approved by the Engineer, except that surface retarder shall be used on exposed aggregate sidewalk.

Concrete for exposed aggregate finish shall conform to the requirements of Section 217 of the Specifications for the class specified, except gravel shall be tan or light brown in color.

The Contractor shall provide a sample of the exposed aggregate finish for approval by the Engineer prior to beginning work. The sample shall be at least 12 inches by 12 inches and approximately 2 inches in depth. The approved sample shall be kept at the work site for comparison to completed work.

When used for sidewalk, exposed aggregate will be measured and paid for in square yards, complete-in-place.

Payment will be made under:

Pay Item

Pay Unit

Exposed aggregate sidewalk

Square yard

3-26-92c, Reissued 7-2008c (SPCN)

GUIDELINES — ASPHALT MAINTENANCE RESURFACING PROJECTS ONLY.

(c510am0-0609)

LOCATING, REMOVING AND DISPOSING OF RECESSED PAVEMENT MARKERS AND RAISED SNOW-PLOWABLE MARKERS — The Contractor shall locate, remove and dispose of existing recessed pavement markers and raised snow-plowable markers prior to resurfacing. The cavity left by the removal of the existing recessed pavement markers shall be filled with the approved mix for resurfacing and the cost shall be considered incidental and included in other appropriate items of work. Locating, removing and disposing of recessed pavement markers and raised snow-plowable markers will not be measured for payment, all cost for performing this work shall be included in the price bid for other items of work.

12-30-08 (SPCN)

GUIDELINES — USE ONLY WHEN REQUESTED BY THE REGIONAL TRAFFIC ENGINEER FOR PROJECTS WITH PROJECT-SPECIFIC COMPLEX CPMs.

(c512hg0-0708) **CONTRACTOR PROPOSED ALTERNATIVE TRAFFIC CONTROL PLANS** - The Contractor may prepare his own Contractor Alternative Traffic Control Plan (CATCP) as an alternative to that shown in the Contract Documents. This alternative plan must be prepared in conformance with the requirements of AASHTO; the latest approved editions of the Manual of Uniform Traffic Control Devices (MUTCD) and the Virginia Work Area Protection Manual. The Contractor must provide, as part of this alternative plan, information and explanations consistent with, and to the same level of detail, as the project-specific Traffic Control plans in the Contract Documents prepared by VDOT or its consultants. The alternative plan must clearly demonstrate coordination with the Contractor's overall, comprehensive plan for prosecuting the work, through its various phases or stages of construction and sequencing. The plan must be supported by a detailed transportation network traffic operations analysis, consistent with the complexity of the project, using a methodology or computer software program approved by the Department. This analysis must satisfactorily demonstrate the operating conditions of the network, and particularly, the work zone given expected traffic volumes during the length of the construction schedule.

As a necessary and integral part of the plan, the Contractor shall be responsible for identifying all utilities and right of way that will be impacted by his proposed CATCP, to include but not be limited to: underground utility designations, securing any additional or supplemental permissions or permits required to construct the project and preparing all analyses, plans, summaries, specifications, special provisions, etc., necessary to secure approvals to construct the project according to his alternative plan. The analyses, plans, summaries, specifications, and special provisions shall be directly prepared by or prepared under the supervision of a Professional Engineer registered to practice civil engineering in the Commonwealth of Virginia who is trained and/or certified in traffic control analysis and design. All such documents shall be signed and sealed by the Professional Engineer.

The Department reserves the right to accept or reject any CATCP developed under the provisions of this specification. The Contractor must obtain the Engineer's written approval before beginning any work using a Contractor Alternative Traffic Control Plan for Maintenance of Traffic. The Engineer's written approval is required for all modifications to the accepted Contractor Alternative Traffic Control Plan. The Engineer will permit changes to the CATCP without proper documentation and authorization only in emergency situations where incident management is critical.

The Engineer's acceptance of the Contractor's Alternative Traffic Control Plan will not relieve the Contractor of his responsibility for all related project impacts, costs, delays, or damages, whether direct or indirect, resulting from Contractor initiated changes in the design or construction activities from those detailed in the original Contract specifications, design plans, including the Department's temporary traffic control plans or other Contract Documents and which effect a change in project work different from that shown in the plans, joint project agreements, or other project construction schedules. No additional compensation or extension of time for contract completion will be considered in conjunction with the Contractor's decision to proceed with use of a Contractor Alternative Traffic Control Plan that is approved by the Engineer.

3-27-08, Reissued 7-2008 (SPCN)

GUIDELINES — PROJECTS REQUIRING POLICE PATROLS AS A STATE FORCE ITEM.

- (c512i00-0708) **POLICE PATROLS** - The Contractor is advised that the Department will use Police patrols in construction work zones when traffic flow problems are anticipated, to enhance the safety of both the public and construction personnel, during the life of this contract.

4-25-88c, Reissued 7-2008 (SPCN)

GUIDELINES – FOR PROJECTS THAT MAKE REFERENCE TO THE TRAFFIC GROUPS LISTED IN THIS SPCN. NOT NEEDED IF S512LM2 Maint Traffic -Asphalt Maint Sched IS USED IN THE PROPOSAL.

- (c512j00-0909) **TRAFFIC GROUPS** — Traffic Groups based on the vehicles per day (ADT) are as follows:

Traffic Group	ADT	Traffic Group	ADT
I	0-9	X	2,000-2,999
II	10-24	XI	3,000-3,999
III	25-49	XII	4,000-4,999
IV	50-99	XIII	5,000-5,999
V	100-249	XIV	6,000-9,999
VI	250-399	XV	10,000-14,999
VII	400-749	XVI	15,000-19,999
VIII	750-999	XVII	20,000-29,999
IX	1,000-1,999	XVIII	30,000-39,999
		XIX	40,000 & over

6-5-09 (SPCN)

GUIDELINES — PROJECTS REQUIRING TRAINEES. THE NUMBER OF TRAINEES MUST BE FILLED-IN.

- (c518b00-0708) **SECTION 518.02(a) NUMBER OF TRAINEES** is amended to replace the first sentence of the first paragraph with the following:

The number of trainees to be trained for this contract shall be fill-in.

6-20-01, Reissued 7-2008 (SPCN)

——**SELECT USE 500 SERIES SPECIAL PROVISION COPIED NOTES (SPCNs)**——

The following are Select Use Special Provision Copied Notes. None have been through the Department's complete Specifications Committee review/comment/acceptance process and are not part of the Standard Specifications. They are to be considered as project-specific and may be subject to modifications required to meet specific project conditions or requirements for Federal funding. Anyone making modifications is responsible for obtaining the appropriate expertise in the discipline applicable to the modification. If modifications are made the date must also be changed to reflect the current date. Please send a copy of the modified special provision copied note with the new date and specific project number to David.Gayle@VDOT.Virginia.gov so it may be added to the Specifications Stockpile.

cu512000a Notice to Remove Parked Vehicles

GUIDELINES — MAINTENANCE SCHEDULE PROJECTS ONLY. (USE ONLY IN PROJECTS WITH ROUTES IN RESIDENTIAL AREAS HAVING PARKED VEHICLES THAT INTERFERE WITH OR MAY BE DAMAGED BY THE WORK BEING PERFORMED AND THE DEPARTMENT SUPPLIES THOSE SIGNS AND/OR NOTICES FOR THIS PURPOSE.).

NOTICE TO REMOVE PARKED VEHICLES - Unless otherwise specified elsewhere in the contract documents, the Department will furnish upon request, street signs for posting or printed notices for distribution, by the Contractor that notifies residents in residential areas to remove parked vehicles from the roadway prior to the Contractor performing work.

9-21-07a (SPCN)

cu512002a Traff Controls (Fairfax)

GUIDELINES — MAINTENANCE PROJECTS ONLY. (INCLUDES SURFACE TREATMENT, SLURRY/LATEX, AND PLANT MIX). FAIRFAX RESIDENCY ONLY.

TRAFFIC CONTROLS FOR FAIRFAX RESIDENCY — The Contractor shall furnish and post temporary "No Parking" signs at least 72 hours prior to commencing work. If the construction date follows a holiday or weekend, the 72 hours shall be in addition to the weekend or holiday. Temporary signs shall contain dates and times of parking restrictions, which shall contain the exact wording as the example furnished by the Department.

The Contractor shall also hand deliver Department furnished notices of construction and the "No Parking" restrictions to all homes and businesses adjacent to the construction area. In the case of apartment buildings, the notice shall be delivered to the management.

The Contractor shall notify the Fairfax County Police Traffic Safety Division Commander at (703) 280-0550 after the signs have been posted and notices delivered. The Contractor shall provide a copy of the notice to the Traffic Division Commander.

The Contractor shall visually inspect the construction site each day after the placement of "No Parking" signs to ensure they are still in place. Any damaged or missing signs shall be promptly replaced at the Contractors expense.

All "No Parking" signs shall be removed and disposed of by the Contractor upon completion of the work.

The Contractor shall contact the Fairfax County Police Traffic Safety Division at (703) 280-0550 to request enforcement and towing from the approved construction site. Holiday and weekend requests shall be directed through the Fairfax County Public Safety Communication Center, phone (703) 691-2131.

10-2-08a (SPCN)

cu512003a Uniformed Flaggers

GUIDELINES — USE WHEN SIGNALIZED INTERSECTION CONTROL EQUIPMENT WILL BE BECOME NON-OPERATIONAL AND TRAFFIC MUST CONTINUE TO FLOW.

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UNIFORMED FLAGGERS - The Contractor shall utilize off-duty uniformed police officers for control of traffic through signalized intersections during periods when the control equipment is non-operational. It is expressly understood that the work under this pay item exceeds the requirements and duties typically associated with flagger service. Off duty police officers will not be required to have VDOT flagger certification to perform this work. Police assisted flagger service will be measured and paid for in hours of in duty service. This price will be full compensation for furnishing uniform officers and all associated costs.

Payment will be made under:

Pay Item	Pay Unit
Uniformed Flaggers	Hours
9-29-08 (SPCN)	

——**STANDARD 500 SERIES SPs (SPECIAL PROVISIONS)**——

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GUIDELINES — USE WHEN REQUESTED BY THE DESIGNER. THIS SPECIAL PROVISION CANNOT BE USED ALONE. THE VDOT "Special Provision for Asbestos Removal for Road Construction Projects" (A PROJECT SPECIFIC SPECIAL PROVISION) MUST BE INCLUDED IN THE PROPOSAL.

S500A00-0708

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
REMOVAL OR CONNECTION OF ASBESTOS CEMENT PIPE

November 7, 2005cc
Reissued July 2008c

I. GENERAL

The Contractor is advised that the existing pipe on this project that is scheduled for removal or for connection may contain asbestos. The Contractor shall assume any pipe designated on the plans as asbestos cement (A/C) pipe contains asbestos in a quantity sufficient to be a health hazard if found in a friable condition or made friable during removal or connection. A/C pipe is a "facility component" as defined in 40 CFR 61.141. The U.S. Environmental Protection Agency and the Virginia Department of Labor and Industry consider A/C pipe to be Category II non-friable asbestos-containing materials. Disposal of A/C is regulated by the Virginia Department of Environmental Quality.

II. PROCEDURES

Modifications of, connections to, or removal of A/C pipe that involve breaking, crushing, saw-cutting or abrading shall comply with the VDOT *Special Provision for Asbestos Removal for Road Construction Projects*.

This Special Provision applies to all removal modifications to A/C pipe where the A/C pipe is removed intact by disconnecting at the slip (bell) joint (with no breakage) and where any subsequent connections are made without disturbing the integrity of the existing pipe. If at any time the Contractor determines that the pipe cannot be removed without breakage, abrading, cutting or crushing, the Contractor shall cease work and resume operations in accordance with the VDOT *Special Provision for Asbestos Removal for Road Construction Projects*.

The Contractor shall spray and saturate pipe joints with amended water prior to disturbing any pipe.

No "T"-type connections shall be made to existing pipe by internally piercing or breaking existing potable water pipe without pre- and post-connection monitoring for asbestos fibers in water downstream of the connection. Any results that exceed 7 million fibers per liter (7MFL) shall be reported immediately to the Engineer.

VDOT, at its discretion, may employ an asbestos project monitor to observe and monitor removal operations of intact A/C pipe. If such monitoring determines that asbestos fibers are being released above the applicable action level or the pipe becomes friable, the Contractor shall cease operations on the pipe and take appropriate corrective action to comply with all applicable federal, state, and local regulations.

Removal, connection, hauling, and disposal shall be performed in accordance with 40CFR 61.140-61.157 (Subpart M-National Emission Standard for Asbestos), with 29 CFR 1926.1101 (Subpart Z-Toxic and Hazardous Substances), and with all state, regional, and local standards. The Contractor shall ensure that the intact A/C pipe sections remain intact during loading and hauling of the material to the licensed disposal facility. The Contractor shall double bag or wrap A/C pipe in plastic and seal and mark the materials. The Contractor shall only dispose of the material in a permitted landfill that provides daily soil cover and only after the Contractor has provided notification to the landfill that the material is non-friable/non-regulated ACM. Within 35 days of the deposit of the waste in the landfill,

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the Contractor shall submit to the Engineer a copy(s) of the certificate of disposal from the landfill. VDOT must receive all acceptable waste manifests/certificates of disposal prior to making payment to the Contractor.

With approval of the Engineer, abandoned portions of A/C pipe may be left in place of origin and backfilled provided that the pipe is not crushed; however, pipe that is scheduled to be abandoned may not be removed and re-deposited. With approval of the Engineer, the Contractor may pump grout into buried lines that are no longer in service to maintain the structural weight bearing capacity of the area. No on-site burial of crushed A/C pipe will be allowed.

III. MEASUREMENT AND PAYMENT

Connection to existing A/C pipe will be measured and paid for at the contract unit price per each for each connection.

Removal of existing A/C pipe (without disturbing integrity of pipe) will be measured and paid at the contract unit price per linear foot for the length of pipe actually removed (back to the closest joint).

Payment for these items shall include all material, labor, and equipment necessary for excavation, disassembly, tie-ins, backfill, line abandonment including grout, documentation and disposal of A/C pipe.

Payment will be made under:

Pay Item	Pay Unit
Connection to Existing A/C Pipe	Each
Remove Existing A/C Pipe	Linear Foot

GUIDELINES — FOR PROJECTS REQUIRING CG-12 DETECTABLE WARNING SURFACE**S504B00-0708****VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
CG-12 DETECTABLE WARNING SURFACE**February 12, 2003ccc
Reissued July 2008c**I. DESCRIPTION**

This work shall consist of providing all labor, tools, equipment, and materials required to construct sidewalk with detectable warning surfaces in the location(s) specified on the plans or in the proposal. The Contractor shall perform the work according to the details shown on the plans or in this special provision, Section 504 of the Specifications, and as directed by the Engineer.

II. MATERIALS

Materials shall conform to the requirements of Section 504 of the Specifications except as follows:

In lieu of concrete, solid brick pavers, or concrete pavers, other permanent, durable materials suitable for heavy traffic outdoor areas approved by the Department may be used to construct the detectable warning areas where called for in the plans and other contract documents. Solid brick pavers and concrete paver units shall conform to the details and requirements shown in the plans. Other durable materials shall be in accordance with Department approved manufacturer's design and specification requirements.

There shall be a minimum of 70 percent contrast in light reflectance between the detectable warning area and adjoining surfaces. The detectable warning can optionally be "safety yellow". The material used to provide visual contrast shall be an integral part of the detectable warning surface. Both the truncated domes and the underlying surface must meet the contrast requirement. The contrast in percent shall be determined by:

$$\text{Contrast} = [(B1 - B2) / B1] \times 100$$

where B1=light reflectance value (LRV) of the lighter area and B2=light reflectance value (LRV) of the darker area. Note that in any application both white and black are never absolute; thus, B1 never equals 100 and B2 is always greater than 0.

When visual contrast other than "safety yellow" is used, provide verification of contrast. Verification of visual contrast is required.

III. PROCEDURES

Construct sidewalk ramp according to Section 504 of the Specifications except for detectable warning/truncated domes that shall be furnished or constructed in accordance with the details in this specification, the manufacturer's recommendations, the Special Design Drawing and the Plans.

IV. MEASUREMENT AND PAYMENT

CG-12 Detectable Warning Surface will be measured in square yards and paid for at the contract unit price per square yard, complete-in-place. This price shall be full compensation for furnishing and installing approved truncated dome finished materials including but not limited to concrete, brick or

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concrete pavers, other Department approved materials, integral visual contrast, dowels and all other labor, tools, equipment, materials and incidentals necessary to fully complete the work.

Payment will be made under:

Pay Item**Pay Unit**

CG-12 Detectable Warning Surface

Square yard

GUIDELINES – FOR PROJECTS REQUIRING REPAIR OR REPLACEMENT OF DAMAGED GUARDRAIL, MEDIAN BARRIER, IMPACT ATTENUATORS AND BRIDGE/GUARDRAIL ATTACHMENTS.**S505BM0-1209**

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
**REPLACEMENT OF GUARDRAIL, MEDIAN BARRIER, IMPACT ATTENUATOR, AND GUARDRAIL
TO BRIDGE ATTACHMENTS**

February 10, 2004

I. DESCRIPTION

This work shall consist of repairing or replacing damaged guardrail, median barrier, impact attenuators and bridge/guardrail attachments, in accordance with this provision, the plans and as directed by the Engineer.

II. MATERIALS

Guardrail and guardrail components shall conform to Section 505 of the Specifications.

Weathering steel guardrail beam and components shall conform to AASHTO M180, Class A, Type 4.

Weathering steel guardrail post and blockout shall conform to ASTM 709, Grade 50W (ASTM A588).

Impact attenuator repair shall use replacement parts from the original manufacturing company, unless approved by the Engineer.

Sign Panels shall conform to Section 701 of the Specifications.

Guardrail Delineators shall conform to Section 702 of the Specifications.

III. PROCEDURES

The Contractor shall inspect the locations and prepare a list of materials and quantity needed for repair for the Engineers review prior to commencing work. The Engineer will notify the Contractor to repair the guardrail by components or to remove and replace sections of damaged guardrail.

The Engineer will preapprove all locations requiring the drilling of holes in bridge railings or fixed objects. The Contractor shall repair any spalling due to the drilling operations in concrete fixed objects or concrete bridge railings and existing holes in concrete shall be patched with materials conforming to Section 218 of the Specifications.

The Contractor shall perform work in accordance with Section 505 of the Specifications, *Road and Bridge Standards* and the standard drawings for "Recommended Method for Attaching Guardrail to Bridge Rails" (BR-GR). The Contractor may need to modify the method of attachment due to field conditions with the approval of the Engineer.

The Contractor shall reconstruct impact attenuators in accordance with the manufacturers' recommendations.

Pay items with the designation "Install " are materials furnished by the Department for the Contractors use in repair of guardrail installations in accordance with Sections 505 and 510 of the Specifications and as directed by the Engineer. The Engineer will indicate per site the quantity and materials to be installed

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and the location of the materials for the Contractors use. The Contractor shall make arrangements with the Area Headquarters 48 hours prior to picking up the materials for installation. All sites designated for use of "Install" materials will be within 25 miles of an Area Headquarters.

Damaged and salvaged guardrail materials shall become the property of the Contractor and shall be disposed of in accordance with Section 106 of the Specifications, unless otherwise specified.

IV. MEASUREMENT AND PAYMENT

Guardrail, Reuse Guardrail, Radial Guardrail, Median Barrier, Radial Median Barrier, Cable Barrier, Guardrail Terminal, Median Barrier Terminal and Fixed Object Attachment will be measured and paid for in accordance with Section 505 of the Specifications.

Remove Guardrail, Reset Guardrail and Install Guardrail will be measured and paid for in accordance with Section 510 of the Specifications.

Sign Panel and Guardrail Delineator will be measured and paid for respectively in accordance with Sections 701 and 702 of the Specifications.

Drill Hole will be measured in units of each and will be paid for at the contract unit price per each, which unit price shall include drilling of hole, repairing spalled areas, and patching abandoned holes.

Re-Tension Existing Cable GR. will be measured in units of each per cable system and will be paid for at the contract unit bid price per each for the standard specified, which shall include re-tensioning the existing cable.

The items below will include removal and disposal of existing guardrail components in the unit price bid.

Guardrail Post, Guardrail Blockout and Offset Block will be measured in units of each for the type and standard specified and will be paid for at the contract unit price per each which price shall include furnishing and installing post, blockout and offset block and hardware.

W Beam Terminal Connector, W Beam End Section and Terminal Connector will be measured in units of each for the standard or type specified and will be paid for at the contract unit price per each, which shall include furnishing and placement, and mounting hardware.

Rubrail will be measured in units of linear feet for the type specified and will be paid for at the contract unit price per linear foot, which shall include furnishing and placement of type rubrail specified, and mounting hardware.

Guardrail Beam and Radial Guardrail Beam will be measured in units of linear feet for the type and standard specified and will be paid for in units of linear foot, which unit price shall include furnishing the type and standard beam specified, and mounting hardware.

Plate will be measured in units of each for the type and standard specified and which unit paid shall include furnishing and placing the specified plate and mounting hardware.

Cable will be will be measured in units of linear feet for the type and standard specified and will be paid for in units of linear foot, which unit price bid shall include furnishing the type and standard cable specified, and mounting hardware.

Realign Post will be measured in units of each and will be paid for at the contract bid price per each, which unit price bid shall include disconnecting and reconnecting rail and realigning the post.

BR-GR Attachment will be measured in units of each, for the type specified per attachment location and will be paid for at the contract unit bid price per each attachment, which shall include furnishing and installing guardrail, blockouts, connector, and hardware.

Steel Tube will be measured in units of each for the type and standard specified and will be paid for at the contract bid price per each, which shall include furnishing and placing of the steel tube, and excavation.

Assembly will be measured in units of each for the type and standard specified and will be paid for at the contract unit bid price per each, which shall include furnishing and placing the specified assembly.

Cable Assembly & Anchor Plate will be measured in units of each for the type and standard specified and will be paid for at the contract unit bid price, which shall include furnishing and installing the cable assembly and anchor plate for the type and standard specified, and hardware.

End Post Caps will be measured in units of each for the standard specified and paid for at the contract unit bid price per each, which shall include furnishing and installing end post caps, and hardware.

Hook Bolt will be measured in units of each for the standard specified and will be paid for at the contract unit bid price per each, which unit price bid shall include furnishing and installing hook bolts.

Angle will be measured in units of each for the type and standard specified and will be paid for at the contract unit bid price per each, which shall include furnishing and installing the specified angle, and hardware.

Soil Plate will be measured in units of each for the standard specified and will be paid for at the contract unit price per each for the standard specified, which shall include furnishing and installing the specified plate, and hardware.

Pipe Sleeve will be measured in units of each for the standard specified and will be paid for at the contract unit price per each for the standard specified, which shall include furnishing and installing the specified pipe sleeve, hardware and removal and disposal of existing pipe sleeve.

Cable Anchor Bracket will be measured in units of each for the standard specified and will be paid for at the contract unit price per each for the standard specified, which shall include furnishing and installing the specified cable anchor bracket, and hardware.

Strut will be measured in units of each for the standard specified and will be paid for at the contract unit price per each for the standard specified, which shall include furnishing and installing the specified strut, and hardware.

Guardrail Extruder will be measured in units of each for the standard specified and will be paid for at the contract unit price per each for the standard specified, which shall include furnishing and installing the specified guardrail extruder, and hardware.

Impact Attenuator Cartridge will be measured in units of each for the original manufacturers' replacement cartridge and will be paid for at the contract unit price per each for the original manufacturers replacement part and hardware, which shall include furnishing and installing in accordance with the manufacturers recommendations.

Nose Section will be measured in units of each for the original manufacturers' replacement nose section and will be paid for at the contract unit price per each for the original manufacturers' replacement part and hardware, which shall include furnishing and installing in accordance with the manufacturers recommendations.

Diaphragm will be measured in units of each for the original manufacturers' replacement diaphragm and will be paid for at the contract unit price per each for the original manufacturers' replacement part and hardware, which shall include furnishing and installing in accordance with the manufacturers recommendations.

Frame will be measured in units of each for the original manufacturers replacement frame and will be paid for at the contract unit price per each for the original manufacturers' replacement part and hardware, which shall include furnishing and installing in accordance with the manufacturers recommendations.

Side Panel will be measured in units of each for the original manufacturers' replacement side panel and will be paid for at the contract unit price per each for the original manufacturers' replacement part and hardware, which shall include furnishing and installing in accordance with the manufacturers recommendations.

Sand Barrel will be measured in units of each for the original manufacturers replacement sand barrel and will be paid for at the contract unit price per each for the original manufacturers replacement parts and hardware, which shall include furnishing and installing in accordance with the manufacturers recommendations.

Payment will be made under:

Pay Item	Pay Unit
(Type) Post (St'd.)	Each
Guardrail Blockout	Each
Guardrail Beam	Linear Foot
Radial Guardrail Beam	Linear Foot
Cable (St'd.)	Linear Foot
Offset Block (Type)	Each
Terminal Connector (Type or St'd.)	Each
W Beam End Section (Type)	Each
Rubrail (Type)	Linear Foot
BR-GR Attachment (Type)	Each
Drill Hole	Each
(Type) Plate (St'd.)	Each
Realign Post	Each
Steel Tube (St'd.)	Each
(Type) Assembly (St'd.)	Each
Cable Assembly & Anchor Plate (St'd.)	Each
End Post Caps (St'd.)	Each
Hook Bolt (St'd.)	Each
(Type) Angle (St'd.)	Each
Re-Tension Exist. Cable GR. (St'd.)	Each
Soil Plates (St'd.)	Each
Pipe Sleeve (St'd.)	Each
Cable Anchor Bracket (St'd.)	Each
(Type) Strut (St'd.)	Each
Guardrail Extruder (St'd.)	Each
Impact Attenuator Cartridge	Each
Nose Section	Each
Diaphragm	Each
Side Panel	Each
Frame	Each
Sand Barrel	Each

*These SPECIFICATIONS REVISIONS are subject to change on short notice.

2007

GUIDELINES — USE WHEN REQUESTED BY THE DISTRICT PAVEMENT ENGINEER. WHEN THIS SECTION APPLIES AND HYDRAULIC CEMENT CONCRETE IS REQUIRED INCLUDE THE FOLLOWING IN THE PROPOSAL: SS21402 Hydraulic Cement, SS21702 Hydraulic Cement Concrete and SS31601 Hydraulic Cement Concrete Pave. WHEN THIS PROVISION APPLIES AND HYDRAULIC CEMENT CONCRETE ADMIXTURES ARE REQUIRED INCLUDE THE FOLLOWING IN THE PROPOSAL: SS21501 Hydraul Cement Conc Admixtures. WHEN ASPHALT CONCRETE IS REQUIRED INCLUDE THE FOLLOWING IN THE PROPOSAL: SS21103 SuperPave - Asphalt Concrete and SS31504 SuperPave -Asphalt Conc Pave.

S509B01-0110

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISIONS FOR
PATCHING HYDRAULIC CEMENT CONCRETE PAVEMENT

August 31, 2007

I. DESCRIPTION

This work shall consist of removing designated areas of defective concrete pavement, replacing subbase material where required, and placing concrete pavement with or without reinforcement in accordance with these provisions and in reasonably close conformity with the original lines and grades as shown on the plans or as established by the Engineer.

The following is a description of each patch type:

Jointed Concrete Pavement Patch, Type I patching shall consist of full depth, full lane width concrete pavement repairs equal to 6 feet in length and less than 15 feet in length. The patch is non-reinforced, with dowels at the transverse joints.

Jointed Concrete Pavement Patch, Type II patching shall consist of full depth, full lane width concrete pavement repairs 15 feet or greater in length. The patch is reinforced with steel wire fabric and has dowels at the transverse joints and longitudinal tie bars as shown in Figures 1 & 2 (Attached).

Jointed Concrete Pavement Patch, Type III patching shall consist of partial depth concrete pavement repairs that extend no deeper than one-third the slab thickness and extend no more than one-half the lane width. Type III patches shall not be used at existing joints or cracks.

Continuously Reinforced Concrete Pavement Type IV shall consist of full depth repairs. Patches shall be of the following types:

Type IV-A patches shall be full lane width and not less than 6 feet long.

Type IV-B patches shall be partial lane width and not less than 6 x 6 feet.

No tie bars will be required for Type IV-A patches or Type IV-B patches less than 15 feet in length.

II. MATERIALS AND EQUIPMENT

A. Materials

The Contractor shall prepare sufficient trial batches of the hydraulic cement concrete mix in the presence of the Engineer to verify the strength and workability of the mix design. The mix

*These SPECIFICATIONS REVISIONS are subject to change on short notice.

shall be shown to be capable of achieving a target opening to traffic strength of 2000 psi when tested in accordance with AASHTO T-23 and T-24.

Subbase material shall conform to the requirements of Section 208 of the Specifications.

Reinforcing steel, dowels, tie bars, hook bolts, and welded wire fabric shall conform to the requirements of Section 223 of the Specifications.

Joint sealer and filler shall conform to the requirements of Section 212 of the Specifications.

Load transfer devices shall be fabricated of steel and shall be of an approved type and design.

Curing materials shall conform to the requirements of Section 220 of the Specifications or be used in accordance with the manufacturer's recommendation.

Epoxy compounds shall conform to the requirements of Section 243 of the Specifications.

Asphalt concrete shall conform to the requirements of Section 211 of the Specifications, except that material may be accepted by certification and visually inspected at the job site by the Engineer.

B. Equipment

Saw cutting equipment shall be capable of sawing neat vertical faces along the patch boundaries. The use of a carbide-toothed wheel saw shall not be permitted for sawing the patch boundaries. A carbide-tipped wheel saw may be used for additional saw cuts provided that a minimum 3-inch clearance from the sawed boundary is maintained.

III. CONSTRUCTION METHODS

Designated defective pavement shall be removed full depth and undisturbed portions of the existing pavement adjacent to the area to be patched shall be left with straight vertical sides.

The existing pavement to be removed shall be sawed full depth along the transverse and longitudinal boundaries, including the lane and shoulder/lane joints as shown on the plans or as directed by the Engineer. Additional saw cuts inside the patch boundaries will be permitted to facilitate the concrete removal operation.

Concrete sawn full depth to be removed shall be lifted out by means of chains, lift-pins, or other approved devices. Concrete breaking in-place shall not be permitted. During the removal operations, utmost care shall be exercised to minimize disturbance and damage to the base material, and the adjacent pavement and shoulder.

Unsuitable subbase material, concrete and reinforcing steel shall be removed and disposed of off the project in accordance with Section 106.04 of the Specifications. After the old concrete has been removed from the patch area, the subbase shall be dressed to the satisfaction of the Engineer. When unsuitable subbase or subgrade material is encountered, it shall be removed, and if replaced brought to grade with specified material, and compacted to the satisfaction of the Engineer.

Where cement-stabilized material is present and is found to be sound, excavation below the top of the cement stabilized material will not be required.

All excavated areas shall be patched the same day. In the event the excavated area has not been patched and cured within the lane closure time restriction, it shall be temporarily filled with asphalt concrete as approved by the Engineer.

The excavated area shall be thoroughly cleaned of loose material and debris and moistened prior to the placement of hydraulic cement concrete.

Existing pavements shall not be removed if such removal will result in hydraulic cement concrete being placed when the ambient air temperature is below 32° F, unless approved by the Engineer. The hydraulic cement concrete temperature at the time of placement shall not be less than 70° F and not more than 95° F, unless approved by the Engineer.

Hydraulic cement concrete shall be deposited on the sublayer, spaded, tamped, and internally vibrated so that it completely fills the area of the patch. Finishing of the plastic hydraulic cement concrete shall conform to the requirements of Section 316 of the Specifications, except that the final surface shall be textured similar to that of the adjoining pavement. The patch and the existing pavement shall be tested for smoothness by means of a 10-foot straightedge laid parallel to the centerline of the road surface, and irregularities in the patch in excess of ¼ inch shall be corrected.

Immediately after straight edging and texturing, the hydraulic cement concrete shall be moist-cured with wet burlap and insulating blankets.

When patching 2 lanes simultaneously, the longitudinal joint shall be reestablished by sawing. Joints shall be sealed with silicone unless otherwise permitted by the Engineer.

Within 24 hours after completion of a patch area, any bituminous concrete shoulders damaged during pavement repair operations shall be reconstructed in accordance with the requirements of Section 315 of the Specifications with full depth Type SM-9.5A asphalt concrete to match the finished shoulder grade. In the event traffic is to be permitted on the patch area prior to reconstruction of the shoulder, the Contractor shall first make such temporary repair to the shoulder as is necessary to avoid any hazardous condition.

The Department will stencil all patches with the date and project identification.

Additional construction methods specific to partial depth repairs are noted under the section headed Type III.

TYPES I AND II

Where the existing joint dowel assembly is to be removed, the existing concrete shall be saw cut full depth and removed a minimum of 1 foot on either side of existing transverse joints. Minimum length of removal shall be 6 feet in accordance with that shown in Figure 1. (Attached)

Oversawing into the adjacent slabs or shoulder shall be kept to the minimum amount necessary to ensure that full depth cuts in the corners have been achieved. All oversawing shall be cleaned and filled with joint sealant.

Any areas damaged during concrete sawing and removal operations shall be repaired to the satisfaction of the Engineer by extending the patch boundary or repairing spalls at the Contractor's expense. Spalls greater than ¼ inch wide and 2 inches long and over ½ inch in depth below the pavement surface shall be repaired using an approved epoxy mortar.

Bond breaking material approved by the Engineer shall be placed at the longitudinal joint for Type I patches as shown in Figure 2 (Attached).

Type I and Type II patches shall be installed in accordance with the requirements of Standard PR-2 unless otherwise noted herein.

Where dowels are required, holes slightly larger than the diameter of the dowels shall be drilled 9 inches into the face of the existing slab starting 6 - 12 inches from either edge and then on 12 inch centers. There shall be four dowels placed in from each pavement edge for a total of eight per joint. The holes shall be located at a depth as shown in Figure 1. The dowels shall be carefully aligned (within 1/4 inch) with the direction of the pavement and parallel to the plane of the surface. A quick setting, non-shrinking mortar or a high viscosity epoxy shall be used to anchor the dowels in the holes. The holes shall be completely filled around the dowels so as to minimize vertical movement of the dowels and ensure that the dowels are permanently fastened to the existing concrete. The epoxy or grout is to be put into the hole in sufficient quantity so that when the bar is inserted, the material completely fills the annular space around the bar. A grout retention ring shall be used as shown in Figure 1.

The surface edges of all patches shall be tooled, formed and/or sawed, and cleaned to result in a properly dimensioned reservoir for sealant. All transverse and longitudinal joints at pavement repair locations shall be filled with silicone in accordance with manufacturer's recommendations unless otherwise permitted by the Engineer. Joints at pavement repair locations shall be cleaned and sealed prior to the winter shutdown unless otherwise directed by the Engineer.

TYPE III

Partial depth patches shall be sawed a minimum depth of 2 inches around the perimeter of the patch area to provide a vertical face at the edges. Concrete within the patching area shall be broken out with a pneumatic hammer not heavier than a 35-pound class or by other methods approved by the Engineer. Edge spalls greater than 1/4 inch wide and 2 inches long and over 1/2 in depth below the pavement surface shall be repaired using an approved epoxy mortar. The area of failure shall be removed by equipment that will not damage the adjacent sound pavement. The exposed faces of the concrete shall be free of loose particles, oil, dust, and other contaminants before placement of patch material. All residues shall be removed just prior to placement of the concrete bonding agent. Bonding agent shall be an approved cement mortar mixture or any other approved agent.

TYPE IV-A&B

Care shall be taken to minimize damage to the adjacent concrete during concrete removal. Should excessive edge chipping occur during removal, it shall be the Contractor's responsibility to resaw, remove, and replace the damaged pavement at the Contractor's expense. Chipping or spalling that exceeds 2 inches wide and 3 inches long or chipping or spalling less than 2 inches wide and 3 inches long that affects more than 10 percent of the joint will be considered excessive.

Replacement will be in accordance with special provisions and standards for placing PR-3, PR-4, and PR-5 continuously reinforced (steel bar) concrete pavement. Transverse faces of all pavements shall be thoroughly cleaned and moistened prior to placement of new concrete.

Existing pavement shall be removed by sawing the exterior transverse patching limits to a depth of 2 to 3 inches. Care shall be taken to avoid saw cutting the steel reinforcement. Longitudinal limits shall be cut full depth. When necessary, the shoulders shall be cut a sufficient depth and width to facilitate forming paving edge. The concrete in the end sections

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shall be removed full depth by methods that will not bend nor gouge the reinforcing steel nor damage the adjacent concrete that is to remain in place as approved by the Engineer. Full depth interior saw cuts shall be used to cut the existing reinforcing steel and to define the limits of the end sections. The existing reinforcing steel shall be cut leaving at least 16 inches for steel overlap plus 2 inches for clearance between the lap and the existing pavement. The end sections shall be at least 18 inches long. The center section of concrete shall be removed full depth as shown elsewhere in this provision.

The reinforcement in the end sections shall be carefully straightened after the breakout of the concrete and cleaned of all concrete and rust scale prior to placement of the concrete. If 3 adjacent bars or more than 3 bars total are corroded or damaged, either a new exterior transverse saw cut extending the end sections to establish the appropriate end section lengths of undamaged steel or some other corrective method as approved by the Engineer shall be required. If damage to the reinforcement occurs due to the Contractor's operation, the corrective measures shall be performed at no cost to the Department.

IV. WARRANTY

The Contractor shall provide a one-year warranty from the date of final acceptance on all hydraulic cement concrete patches. The Department will stencil all patches with the installation date and project identification. The Department will monitor patches installed throughout the warranty period for compliance and acceptability. The Contractor shall remove and replace any patch that fails due to materials or workmanship before the end of the warranty period and shall do so within 14 days after Department notification unless otherwise directed by the Department. Failure of a patch is defined by the medium or high severity occurrence of longitudinal cracking, transverse cracking, transverse joint spalling, longitudinal joint spalling, corner breaks, joint faulting or other undesirable distress as described and measured in the 2003 Distress Identification Manual for the Long-Term Pavement Performance Program. The Engineer shall notify the Contractor of the date for the warranty inspection and the Contractor shall be present at the inspection.

If notified regarding a failed patch, the Contractor may request a review by the Department. This review will be conducted to determine if the patch failure is a result of materials or workmanship based on a visual inspection. Further inspection may be required as directed by the Department. Failures not related to materials or workmanship are excluded from this warranty.

V. MEASUREMENT AND PAYMENT

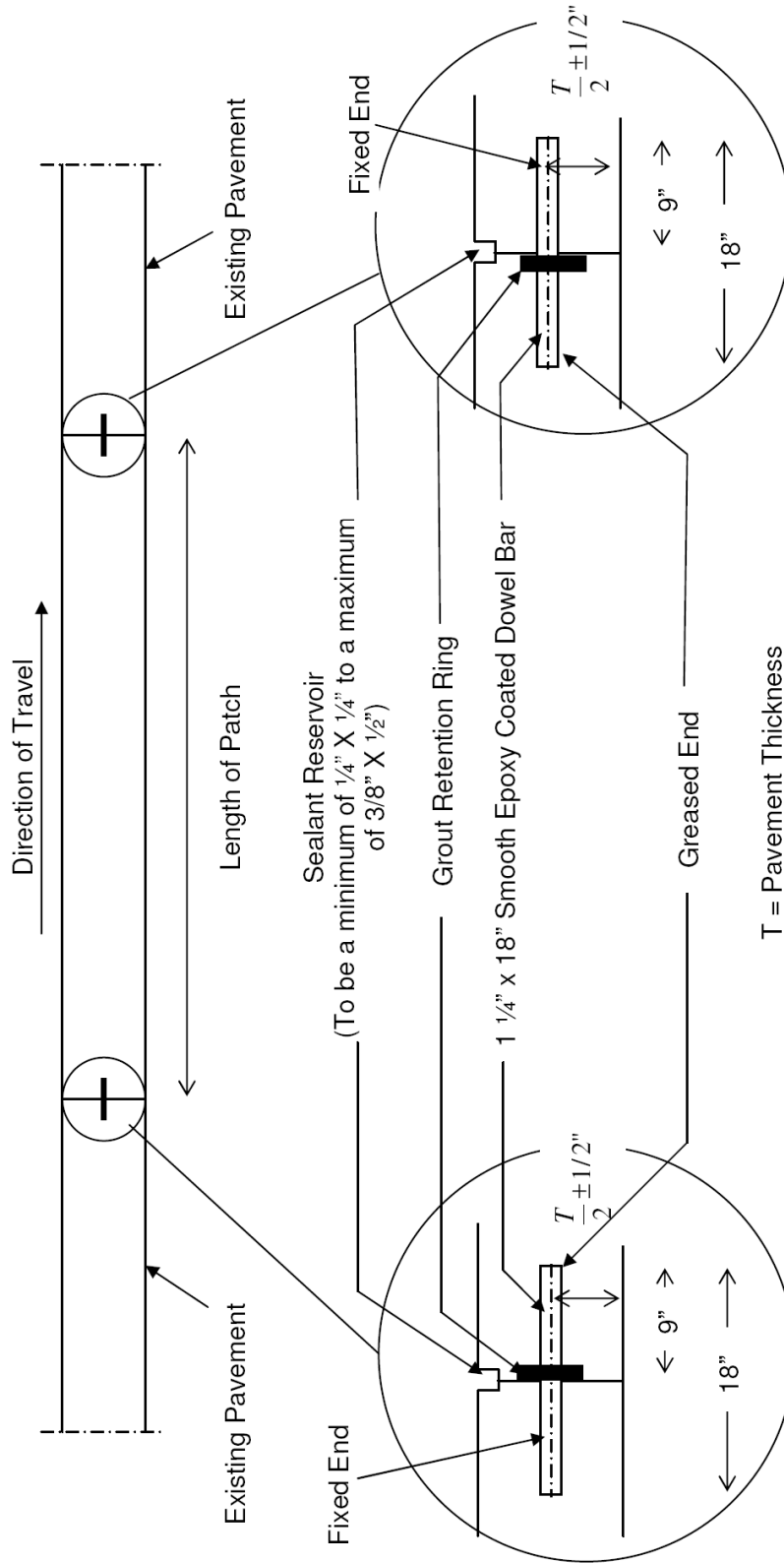
Patching hydraulic cement concrete pavement will be measured in square yards of pavement surface area, complete-in-place, and will be paid for at the contract unit price per square yard for the type and depth specified, which price shall be full compensation for saw cutting pavement to the required depth, removing and disposing of existing concrete, preparing of sublayer, furnishing and installing preformed expansion material, furnishing and installing steel dowels, furnishing and installing reinforcing steel as specified, furnishing, placing, finishing, and curing special design concrete, cleaning and sealing joints, patch area protection, and for all materials, labor, tools, equipment, and incidentals necessary to complete the work

Payment will be made under:

Pay Item	Pay Unit
Patching Hydraulic Cement Concrete Pavement (Type and Original Design Depth)	Square Yard

In areas where the Engineer deems the sublayer insufficient to support the patch, the sublayer shall be excavated to sound material and replaced with Aggregate fill-in type at a cost of \$ fill-in amount per ton. This shall be full compensation for excavation and disposal of unsuitable sublayer, and for furnishing, placing, and compacting aggregate material.

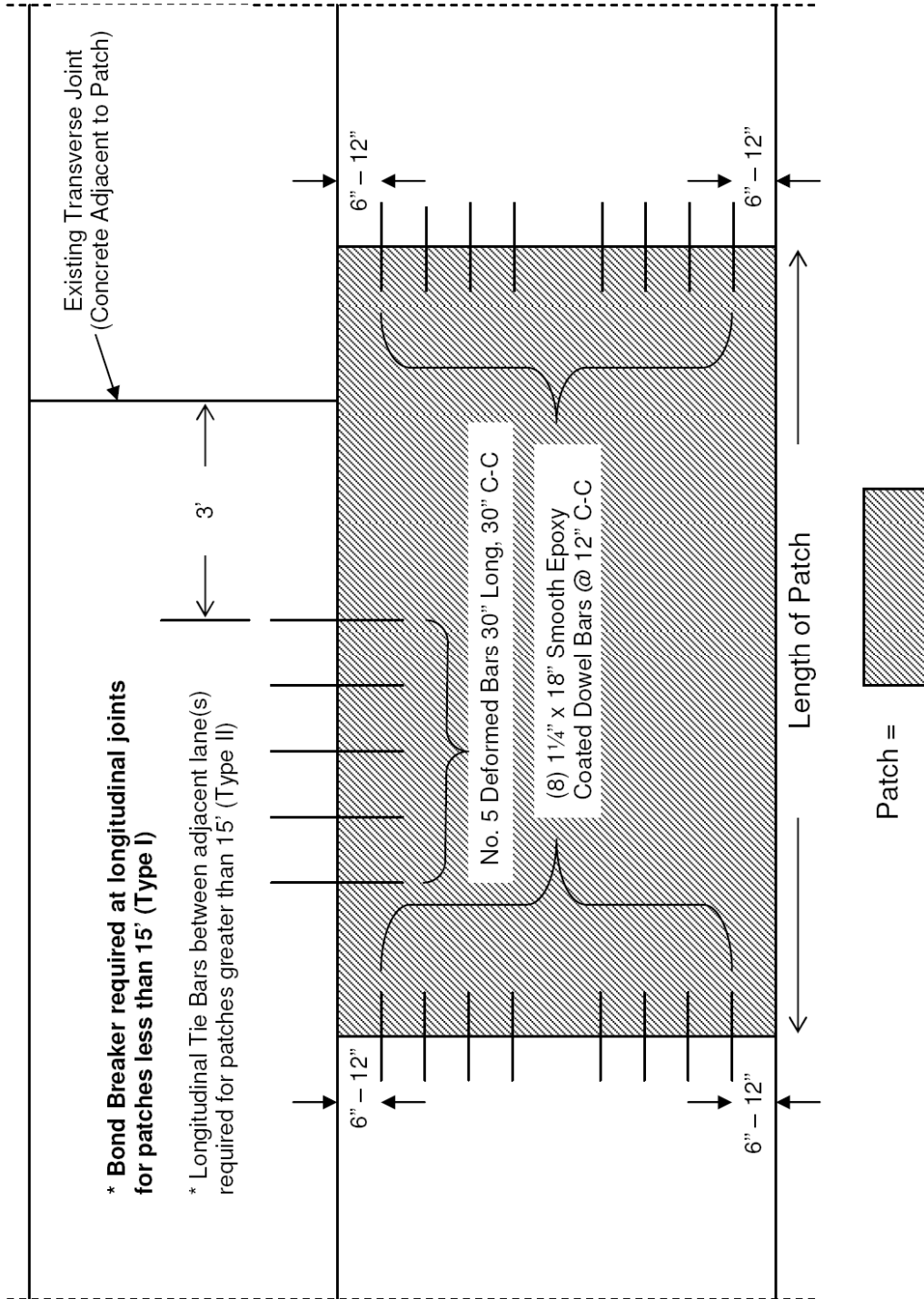
TYPE I AND TYPE II JOINTED CONCRETE PATCHES



NOTE: If the length of patch is greater than 15 feet, re-establish joint in center of patch with the standard dowel basket and if the distance between remaining joints is greater than 15 feet, steel wire mesh shall be placed in a manner which will provide for a final location in the middle third of the slab thickness, maintaining a minimum of 2 inches of concrete cover.

FIGURE 1

TYPICAL TYPE I AND TYPE II PATCHES

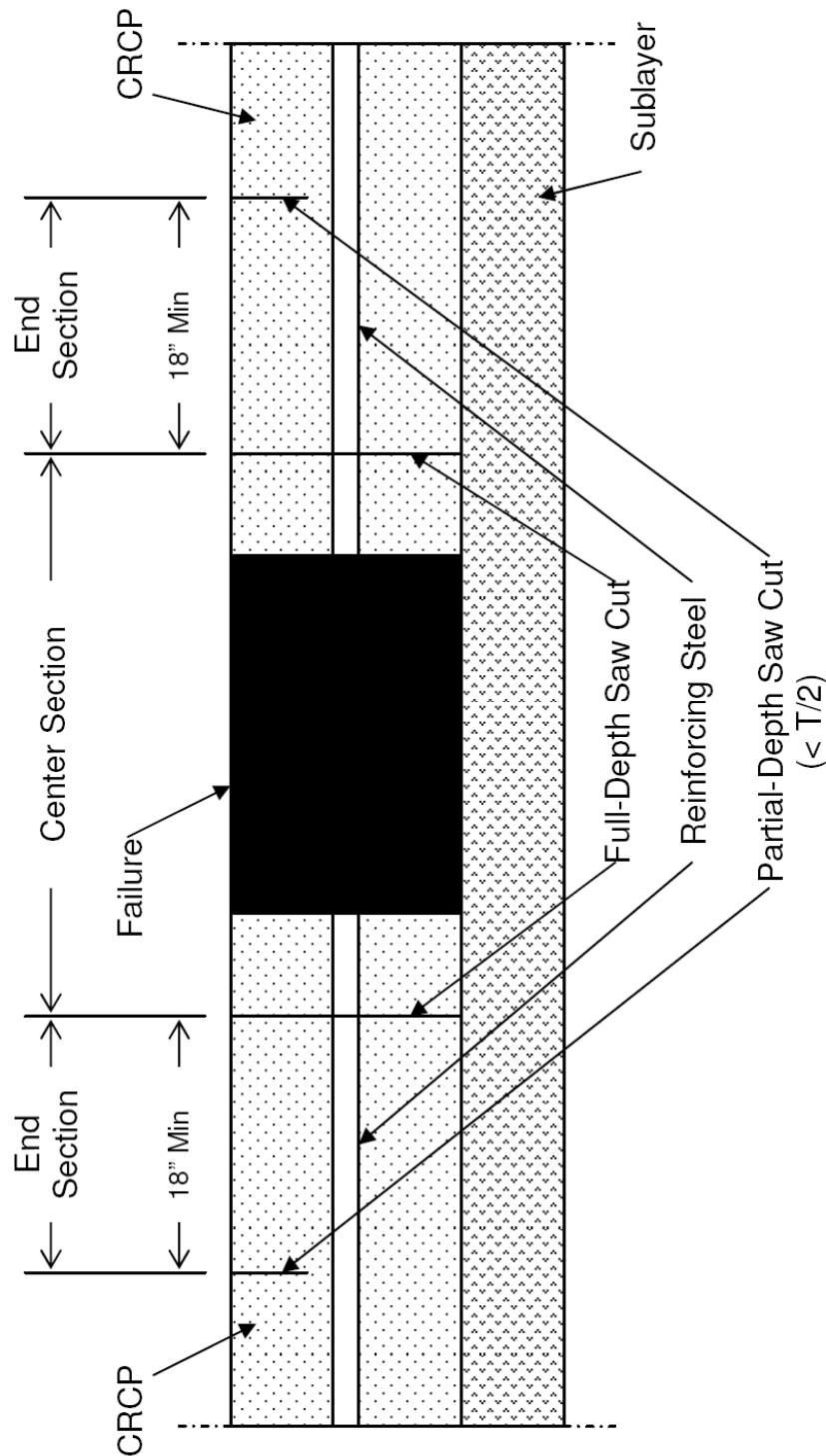


Typical Load Transfer Steel Layout for Patching Jointed Concrete Pavement

FIGURE 2

*These SPECIFICATIONS REVISIONS are subject to change on short notice.

TYPICAL SECTION ELEVATION VIEW OF TYPE IV-A&B PATCHES



NOTE: Longitudinal Tie Bars Necessary for Patches Greater Than 15'.
T = Pavement Thickness

FIGURE 3

GUIDELINES — USE ONLY WHEN REQUESTED BY THE REGIONAL TRAFFIC ENGINEER FOR PROJECTS WITH PROJECT-SPECIFIC COMPLEX CPMs

S512KG0-0708

**VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
WORK ZONE TRAFFIC CONTROL MANAGEMENT**

January 14, 2008

I. GENERAL DESCRIPTION

This work shall consist of providing work zone traffic control management in strict compliance with the contract, plans, specifications, the Virginia Work Area Protection Manual and the Manual on Uniform Traffic Control Devices (MUTCD), including supervision of personnel and the installation, inspection, and maintenance of all traffic control devices on the project.

II. REQUIREMENTS

The Contractor shall assign a traffic control supervisor (TCS) to provide work zone traffic control management for the project. If the Contractor assigns more than one TCS to provide work zone traffic control management, a weekly schedule identifying who will be in charge of providing work zone traffic control management on a daily basis shall be submitted to the VDOT Area Construction Engineer by the Contractor.

The TCS shall have a set of traffic control plans and a copy of the edition of the Virginia Work Area Protection Manual specified on the plan sheet or in the contract readily available at all times.

A. Certification

Prior to commencing work requiring work zone traffic control management, the Contractor shall submit to the Area Construction Engineer a valid copy of the Traffic Control Supervisor certificate (wallet size card) issued by the American Traffic Safety Services Association (ATSSA), or another similarly accredited agency or firm approved by the Department.

The Department will accept the certification by ATSSA or any approved agency or firm only if all of the following minimum requirements are met:

1. Successful completion of an Intermediate or Advanced work zone traffic control training course approved by the Department.
2. Passing a written examination given by the agency or firm on the approved work zone traffic control training course.
3. A minimum of two years full-time field experience in work zone traffic control. The experience may be verified by the Department at its discretion.

The TCS certification shall be renewed every four years by the TCS taking and passing a recertification test. The recertification test shall be taken through ATSSA or an agency or firm approved by the Department. Recertification shall be done in the fourth year prior to the expiration date.

B. Duties

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2007

The TCS's main responsibility shall be work zone traffic control management. The TCS may have other assigned duties on the project as approved in writing by the Area Construction Engineer. The following is a listing of the TCS's primary duties:

1. The TCS(s) shall personally provide work zone traffic control management and supervision services at the project site.
2. The TCS(s) shall coordinate the training of flagging and signing personnel.
3. The TCS(s) shall supervise the flagging and signing personnel.
4. The TCS(s) shall coordinate all work zone traffic control operations for the duration of the contract, including those of subcontractors, utility companies, and suppliers, to ensure that all work zone traffic control is in place and fully operational prior to the commencement of any work.

The Department recognizes that the Contractor does not have direct control over the work zone traffic control operations of the utility companies. The coordination provided by the TCS when dealing with utility companies is for the purpose of coordinating concurrent utility work zone traffic control with any other construction/maintenance work zone traffic control to avoid conflicts.

5. The TCS(s) shall perform daily reviews of work zone traffic control when work activities are underway and document in the work zone traffic control daily diary activities taking place and any deviation from the traffic control plan, length and timing and mitigation of excessive traffic queues, and instances or conflicts or problems with the work zone traffic control and corrective actions taken. In addition, the TCS(s) shall perform weekly reviews of the work zone traffic control and document in detail using Forms TE-97001 and 97002. Every other detailed weekly review shall be performed during nighttime hours or as directed by the Area Construction Engineer.

The TCS shall inspect traffic control devices in use for compliance with the ATSSA Quality Standards for Work Zone Traffic Control Devices, the Road and Bridge Specifications, and the Virginia Work Area Protection Manual. The TCS shall provide for the immediate repair, cleaning, or replacement of traffic control devices not functioning as required to ensure the safety of the motorists and construction personnel.

The traffic control devices shall be inspected by the TCS during working and nonworking hours on a schedule approved in writing by the Area Construction Engineer, but as a minimum at the beginning and end of each work day or night and once during non-working weekends and holidays, and daily on restricted days due to inclement weather or during any work shutdown.

Traffic control devices in use longer than fourteen (14) days shall be inspected by the TCS at least once every other week during nighttime periods.

6. The TCS(s) shall prepare and submit statements concerning road closures, delays, and other project activities to the District Public Affairs office as required.
7. The TCS(s) shall be responsible for notifying the VDOT project Maintenance of Traffic (MOT) Coordinator or designee, of all accidents related to the project traffic control. The time and date of notification shall be documented in the daily diary.
8. The TCS(s) assigned to the project shall attend the preconstruction conference and any other meeting which involves traffic control.
9. The TCS(s) shall be responsible for the maintenance, cleanliness, and replacement of traffic control devices of the existing traffic control plan during working and non-working hours.

C. Documentation - Traffic Control Diary

The TCS shall maintain a project work zone traffic control diary in a bound book. The Contractor shall provide a sufficient number of diaries for his or her use.

The TCS shall keep the work zone traffic control diary current on a daily basis, and shall sign each daily entry. Entries shall be made in ink in a format approved by the Area Construction Engineer, and there shall be no erasures or white-outs. Incorrect entries shall be struck out and then replaced with the correct entry. Photographs may be used to supplement the written text.

The work zone traffic control diary shall, at all times, be available for inspection by the VDOT Maintenance of Traffic Coordinator and a copy of the diary shall be submitted to the MOT Coordinator on a weekly basis.

The work zone traffic control diary(s) shall become the property of the Department at the completion of the project. Failure to submit the diary shall result in the withholding of final payment until the diary(s) is submitted.

D. Availability of TCS

Traffic control management shall be provided under the supervision and direction of the TCS on a 24-hour-per-day basis throughout the duration of the project.

The TCS shall be available on every working day—on call at all times—and available upon the Area Construction Engineer's request during normal working hours and during other than normal working hours in the case of emergency. The provisions for availability of the TCS shall also be met during times of partial or full project suspension. Contact telephone numbers for the TCS(s) shall be provided to Department project personnel, the Area Construction Engineer, the Residency Administrator, and the region Smart Traffic Center prior to the Contractor commencing work requiring work zone traffic control management.

E. Failure to Comply

The Area Construction Engineer may suspend all or part of the Contractor's operation(s) for failure to comply with the approved "Traffic Control Plan" or failure to correct unsafe traffic conditions within 24 hours for critical items and 72 hours for non-critical items after such notification is given to the Contractor in writing.

In the event that the Contractor does not take appropriate action to bring the deficient work zone traffic control into compliance with the approved traffic control plan or fails to correct the unsafe traffic conditions, the Department may proceed with the corrective action using its own forces, equipment, and material to maintain the project and such costs, plus 25 percent for supervisory and administrative personnel, will be deducted from the money owed to the Contractor for the project.

The Contractor shall not be relieved of the responsibility to provide work zone traffic control safety to the traveling public when a project is under full or partial suspension. When a project is under suspension due to the Contractor's failure to comply with this section, or when the contract is under liquidated damages, the Contractor shall continue to provide work zone traffic control management and no additional measurement or payment will be made.

If suspensions or partial suspensions are requested by the Contractor, the additional work zone traffic control management costs will be at the Contractor's expense.

III. MEASUREMENT AND PAYMENT

*These SPECIFICATIONS REVISIONS are subject to change on short notice.

2007

Work Zone Traffic Control Management will be paid for at the contract lump sum price. This price shall be full compensation for furnishing 24 hour services as specified, including preparing and furnishing Work Zone Traffic Control diaries.

When work zone traffic control management is paid for by the lump sum, monthly partial payments for work zone traffic control management will be made on a pro rata basis for the estimate period being vouchered for payment.

In the event the contract time is authorized to be extended in accordance with the provisions of Section 108.04 of the Specifications, the provisions of Section 104.02 of the Specifications will not apply. The payment for this item will be compensated on a daily basis by dividing the original lump sum bid amount by the number of calendar days in the original contract time and the resultant daily dollar value assigned to this item.

Payment will be made under:

Pay Item

Work Zone Traffic Control Management

Pay Unit

Lump Sum

GUIDELINES — MAINTENANCE PROJECTS ONLY (INCLUDES SURFACE TREATMENT, SLURRY/LATEX, AND PLANT MIX). IF, FOR A PARTICULAR PROJECT, A PRICE(S) IS JUSTIFIED TO BE DIFFERENT THAN WHAT IS STATED IN THIS SP, A SPCN MUST BE WRITTEN THAT SPECIFICALLY OVERRIDES THE COST FOR THAT PARTICULAR ITEM. WHEN MEASUREMENT AND PAYMENT OF ANY PAY ITEM IN THIS SPECIAL PROVISION IS DIFFERENT THAN WHAT IS SHOWN IN THE MEASUREMENT AND PAYMENT SECTION IN THIS SPECIAL PROVISION, AN SPCN FOR INCLUSION IN THE PROPOSAL MUST BE SUBMITTED TO AND APPROVED BY THE STATE CONTRACT ENGINEER. THIS SUBMISSION MUST INCLUDE SUPPORTING DOCUMENTATION. WHEN THIS PROVISION APPLIES INCLUDE THE FOLLOWING IN THE PROPOSAL: SS70101 Traffic Signs.

S512LM2-1009

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
SECTION 512—MAINTAINING TRAFFIC
(Maintenance)

October 1, 2009c

SECTION 512—MAINTAINING TRAFFIC of the Specifications is amended as follows:

Section 512.01—Description is replaced by the following:

This work shall consist of maintaining and protecting traffic through areas of construction, maintaining public and private entrances and mailbox turnouts, and protecting the traveling public within the limits of the project in accordance with the requirements of the *Virginia Work Area Protection Manual (VWAPM)*, the drawings herein, and the Contract documents or as directed by the Engineer.

Section 512.03—Procedures is amended to include the following after the second paragraph:

The Contractor shall use the requirements in the traffic control layout details in the *VWAPM*, the drawings herein, and the Contract for control of traffic during the resurfacing of roadway pavements. In the event the work site requires a different layout or a modification of the aforementioned layouts, the Engineer must approve the Contractor's design prior to use.

Traffic Groups based on the vehicles per day (ADT) are as follows:

Traffic Group	ADT	Traffic Group	ADT
I	0-9	X	2,000-2,999
II	10-24	XI	3,000-3,999
III	25-49	XII	4,000-4,999
IV	50-99	XIII	5,000-5,999
V	100-249	XIV	6,000-9,999
VI	250-399	XV	10,000-14,999
VII	400-749	XVI	15,000-19,999
VIII	750-999	XVII	20,000-29,999
IX	1,000-1,999	XVIII	30,000-39,999
		XIX	40,000 & over

Section 512.03—Procedures is amended to replace (a) and (b) with the following:

- (a) **Signs:** The Contractor shall furnish and install temporary sign panels necessary for the project which shall include but not be limited to, maintenance of traffic, and begin and end of construction. The Contractor shall also furnish and install those signs not listed in the *VWAPM*, the drawings herein, or the Contract (such as "Loose Gravel", "Unmarked

Pavement”, and “Low Shoulder”) that may be required by the Engineer to ensure the safety of the traveling public for this project.

Signs and their placement shall conform to the requirements of the *Virginia Work Area Protection Manual*, the *MUTCD*, the drawings herein, the Contract documents and as directed by the Engineer. The Contractor shall submit to the Engineer a sketch of his proposed construction sign layout for approval prior to installation. The Contractor shall furnish supports, i.e., wood posts and barrier and wall attachments, and hardware for use with the temporary sign panels. In lieu of using wood posts, the Contractor may request permission from the Engineer to use alternate products on the Special Products Evaluation List. The request shall contain all information related to the manufacturer's installation requirements, including but not limited to, post spacing and the square footage of sign panel the product can support based on AASHTO's requirements for a wind speed of 60 miles per hour. The Contractor shall be responsible for covering, uncovering, or removing and reinstalling existing signs that conflict with the signs needed for maintenance of traffic. Covering of existing signs shall be accomplished in accordance with the requirements of Section 701.03(d) of the Specifications. The Contractor shall furnish and install flags for the temporary sign panels as directed by the Engineer except flags will not be required for use on portable sign supports. Signs shall be installed and attached to wooden supports in accordance with Standard WSP-1 of the Department's *Road and Bridge Standards*. The size and number of wooden supports shall be in accordance with the standard drawings. When alternate products for supports are approved for use by the Engineer, the supports, including size and number, and signs shall be installed in accordance with the manufacturer's recommendation.

Retroreflective flexible sign base materials conforming to the requirements of Section 247 of the Specifications for material that is not Type VI material may be used both day and night up to a maximum of three continuous days.

The Contractor may furnish portable sign stands for mounting temporary sign panels in accordance with the following:

1. Portable sign stands for sign installations, their placement and allowed time of use in lieu of post installation shall conform to the requirements of the *Virginia Work Area Protection Manual*, the *MUTCD*, , the drawings herein, the Contract documents and as directed by the Engineer.
2. Portable sign stands shall be used with signs having a substrate material of the type required in Section 512.02(e) of the Specifications and only those that were tested and found to be in compliance with the requirements of *NCHRP Report 350*, Test Level 3, or otherwise accepted in an FHWA acceptance letter for the specific sign stand.

Portable sign stands shall conform to the requirements of *NCHRP Report 350*, Test Level 3, and shall be selected from those shown on the Department's Approved List or the Contractor shall submit a certification letter submitted prior to their use stating the brands and models of portable sign stands to be used along with a copy of the FHWA acceptance letter indicating compliance with *NCHRP Report 350*, Test Level 3,. Portable sign stands shall be self-erecting and shall accommodate signs of the shape being used. Portable sign stands shall support a 16-square-foot sign panel in sustained winds of 50 miles per hour without tipping over, walking, or rotating more than ± 5 degrees about its vertical axis. Additional weight consisting of no more than one 25-pound sandbag placed on each leg or no more than two cone weights positioned on the center of the sign stand and around the mast may be used to comply with this requirement. When used on uneven surfaces, the portable sign stand shall be capable of adjusting to those surfaces

to allow the signs to be installed in their normal upright position ± 15 degrees. Portable sign stands shall include decals, stenciling, or other durable marking system that indicates the manufacturer and model number of the stands. Such marking shall be of sufficient size so it is legible to a person in a standing position.

The Contractor shall erect, maintain, move, and be responsible for the security of sign panels and shall ensure an unrestricted view of sign messages for the safety of traffic. The Contractor shall maintain and store signs furnished by the Department in a manner approved by the Engineer until they are returned to the Department.

When construction signs are covered to prevent the display of the message, the entire sign shall be covered with silt fence or other materials approved by the Engineer such that no portion of the message side of the sign shall be visible. Plywood shall be used on ground-mounted construction signs only. Attachment methods used to attach the covering material to the signs shall be of a durable construction that will prevent the unintentional detachment of the material from the sign. At no times shall a construction sign and/or post be rotated to prevent the display of the message. In addition, the posts where the signs are being covered shall have two ED-3 Type II delineators mounting vertically on the post below the signs at a height of 4 feet to the top of the topmost delineator. The bottom delineator shall be mounted 6 inches below the top delineator.

- (b) **Flagger Service and Pilot Vehicles:** The Contractor shall provide flagger in accordance with the requirements of Section 105.14(c) of the Specifications.

1. **Interstate routes:** When one-way traffic is approved, the Contractor shall provide flagger service and, where necessary, pilot vehicles to maintain traffic. Each vehicle shall be equipped with at least one roof-mounted rotating amber flashing light and shall display required signs while in service.

The Contractor may be permitted to use two-way radio communications in lieu of pilot vehicles in appropriate traffic conditions, when approved by the Engineer.

Portable traffic control signals conforming to the requirements of Section 512.03(h)2 of the Specifications may be used in lieu of flagger service when specified or approved by the Regional Traffic Engineer. When portable traffic control signals are used in lieu of flagger service the portable traffic control signals will be measured and paid for separately.

2. **Non-Interstate routes:** When one-way traffic is approved, the Contractor shall provide flagger service and, where necessary, pilot vehicles to maintain traffic. Each vehicle shall be equipped with at least one roof-mounted rotating amber flashing light and shall display required signs while in service.

The Contractor may be permitted to use two-way radio communications in lieu of pilot vehicles in appropriate traffic conditions, when approved by the Engineer.

Portable traffic control signals conforming to the requirements of Section 512.03(h)2 of the Specifications may be used in lieu of flagger service when specified or approved by the Regional Traffic Engineer. When portable traffic control signals are used in lieu of flagger service the portable traffic control signals will be measured and paid for separately.

The Contractor shall have no less than one flagger at the beginning and one flagger at the ending of each work site on roadways having less than 2,000 vehicles per day (ADT). The Contractor shall have no less than two flaggers at

the beginning and two flaggers at the ending of each work site on roadways having over 2,000 ADT. When the Engineer determines additional flaggers are necessary at the work site, the Contractor shall furnish them. On a divided highway the Engineer will instruct the Contractor where flaggers shall be stationed. Pilot trucks shall be used on all roads where modified seal treatments, seal treatments using latex modified emulsified asphalt (CRS-2L) and other seal treatments on roads having more than of 49 ADT are being placed, unless otherwise directed by the Engineer.

Section 512.03(q) Portable Changeable Message Signs (PCMS) is amended to replace the last sentence of the fifth paragraph the following:

In these circumstances, the cost for such additional units that are authorized by the Engineer shall be in accordance with the requirements of Section 512.04 herein.

Section 512.03(q) Portable Changeable Message Signs (PCMS) is amended to delete the last paragraph.

Section 512.03 Procedures is amended to add (r) **Work Zone Traffic Control** as the following:

- (r) **Work Zone Traffic Control:** The Contractor shall provide individuals trained in Work Zone Traffic Control in accordance with the requirements of Section 105.14 of the Specifications.

Section 512.04—Measurement and Payment is replaced as follows:

Traffic control layout detail items required in accordance with the VWAPM, the drawings herein, and the Contract will not be measured for separate payment. Such traffic control shall include furnishing, erecting, installing or employing and maintaining traffic control devices. The cost thereof shall be included in the price bid for other items except where specified elsewhere in the Contract or herein.

Additional traffic control layout detail items that are determined and authorized by the Engineer to be necessary to ensure the safety of the traveling public and are **in addition to the number required** by the traffic control layout details in the VWAPM, the drawings herein, and the Contract, will be measured and paid for as follows:

- **Flagger service** shall include furnishing certified flagger, paddles and safety equipment. Where additional flagger service is required, as determined and authorized by the Engineer, flagger service will be measured in hours and paid for at the rate of **\$15** per hour of use.

When flagger service is used for the Contractor's convenience, such as for ingress and egress of construction equipment or materials, payment will not be made. **Note:** The required flaggers described in the two flagging conditions in Section 512.03(b)2. herein will not be measured as a separate pay item but will be considered incidental to the traffic control operations described.

- **Pilot vehicles** shall include furnishing vehicles, necessary warning devices, drivers, fuel and maintenance. Where additional pilot vehicles are required as determined and authorized by the Engineer, such vehicles will be measured in hours of actual use and will be paid for at the rate of **\$23** per hour of employed use.
- **Electronic arrows** shall include furnishing arrow panels, fuel, maintenance, and a truck or trailer having flashing amber warning lights for mobility of the electronic arrow. Where

additional electronic arrows are required as determined and authorized by the Engineer, electronic arrows will be measured in hours of actual use and will be paid for at the rate of **\$5** per hour for each hour of employed use.

- **Warning lights** for use on sign panels or installed on traffic barrier service will not be measured for separate payment. The cost thereof shall be included in the price for other appropriate pay items. This shall include maintaining, relocating, and removing.
- **Group 1 channelizing devices** will not be measured for separate payment. The cost thereof shall be included in the price for other appropriate pay items.
- **Group 2 channelizing devices**, not designated in the Contract as a separate pay item but where additional Group 2 channelizing devices are required as determined and authorized by the Engineer, these will be measured in days and paid for at the rate of **\$1** per day per device. This price shall include furnishing and maintaining devices, removing devices when no longer required and signs. When group 2 channelizing devices are moved to a new location or are removed and re-installed at the same location, they will be measured for separate payment. However, when group 2 channelizing devices are moved within the lane or from one lane to another by simply moving the devices across the lane edge line without removal from the roadway, no additional payment will be made.
- **Traffic barrier service** will not be measured for separate payment. The cost thereof shall be included in the price for other appropriate pay items. This shall include warning lights, delineators, barrier vertical panels, fixed object attachments, patching restraint holes, fixed object attachments used on traffic barrier service in locations where existing guardrail is in place including restoring existing guardrail to its original condition, maintaining, and removing traffic barrier service when no longer required.
- **Traffic barrier service guardrail terminal** will not be measured for separate payment. The cost thereof shall be included in the price for other appropriate pay items. This shall include furnishing, installing, moving to a new location as directed or approved by the Engineer, and removing when no longer needed.
- **Impact attenuator service** will not be measured for separate payment. The cost thereof shall be included in the price for other appropriate pay items. This shall include Impact attenuators used with barrier openings for equipment access.
- **Construction pavement markings** will not be measured for separate payment. The cost thereof shall be included in the price for other appropriate pay items. This shall include furnishing marking materials, preparing the surface, adhesive, installation, maintaining, removing removable markings when no longer required, inspections, and testing.
- **Construction pavement message markings** will not be measured for separate payment. The cost thereof shall be included in the price for other appropriate pay items. This shall include marking materials, preparing the surface, adhesive, maintaining, and removing removable markings when no longer required.
- **Temporary pavement markers** will not be measured for separate payment. The cost thereof shall be included in the price for other appropriate pay items. This shall include furnishing and installing pavement markers, surface preparation, adhesive, and maintaining and replacement of lost or damaged markers and removing the pavement markers and adhesive when no longer required.

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- **Aggregate material** will not be measured for separate payment. The cost thereof shall be included in the price for other appropriate pay items. This shall include preparing the grade and furnishing, placing, maintaining, and removing material as required.
- **Type III barricades** will not be measured for separate payment. The cost thereof shall be included in the price for other appropriate pay items. This shall include furnishing and placing barricades, retroreflective sheeting, maintaining, relocating to new locations and removing when no longer required.
- **Construction signs** except those already required by the Contract (which includes those signs required by the VWAPM, the drawings herein, and such signs as “**Loose Gravel**”, “**Unmarked Pavement**”, and “**Low Shoulder**” that may be required by the Engineer to ensure the safety of the traveling public due to the nature of the Contractor's operations) when determined and authorized by the Engineer, will be measured in square feet and paid for at **\$20** per square foot. This payment, based on square footage, shall be compensation for furnishing, placing, relocating, covering, uncovering, and removing the sign(s) when no longer needed for the duration of the project; multiple payments for the same sign used more than once will not be allowed. Such extra signs will consist of either a greater number of the standard signs already listed in the applicable traffic control layout details in the VWAPM, the drawings herein, and the Contract, or other signs included in the VWAPM but not originally considered applicable for use on this Contract.
- **Truck mounted attenuators**, not designated in the Contract as a separate pay item but where additional Truck Mounted Attenuators are required as determined and authorized by the Engineer, these will be measured in hours of actual use required, and will be paid for at the rate of **\$22** per employed hour. This price shall include furnishing the truck mounted attenuator, mounting vehicle, lights, electronic arrows, if allowed but not required, and maintenance. When electronic arrows are used at the option of the Contractor in lieu of the rotating or high intensity amber strobe light, the cost of the electronic arrow shall be included in the price for truck mounted attenuators. When electronic arrows are required and authorized as determined by the Engineer and not incidentally mounted (and permitted) on such truck mounted attenuator support vehicles, they will be paid for separately as specified herein.
- **Portable traffic control signal** will not be measured for separate payment. The cost thereof shall be included in the price for other appropriate pay items. This shall include portable traffic control signal equipment, installation, energy source, maintaining, adjusting, aligning, removing and relocating equipment.
- **Portable Changeable Message Signs (PCMS)**, not designated in the Contract as a separate pay item but where additional Portable Changeable Message Signs are required as determined and authorized by the Engineer, these will be measured in hours of actual use and paid for at the rate of **\$15** per hour for each hour of employed use. This price shall be full compensation for furnishing or mobilizing the unit(s) to the project, maintenance, operation, and repositioning the unit(s).

Eradication of existing pavement markings will be measured in linear feet of a 6-inch width or portion thereof as specified herein. Widths that exceed a 6-inch increment by more than 1/2 inch will be measured as the next 6-inch increment. Measurement and payment for eradication of existing pavement markings specified herein shall be limited to linear pavement line markings. Eradication of existing pavement markings will be paid for at the contract unit price per linear foot. This price shall include removing linear pavement line markings and disposing of residue.

Eradication of existing nonlinear pavement markings will be measured in square feet based on a theoretical box defined by the outermost limits of the nonlinear pavement marking. Nonlinear pavement markings shall include but not be limited to stop bars, arrows, images and messages. Eradication of existing nonlinear pavement markings will be paid for at the contract unit price per square foot. This price shall include removing nonlinear pavement markings and disposing of residue.

Basic Work Zone Traffic Control – Separate payment will not be made for providing a person to meet the requirements of Section 105.14 of the Specifications. The cost thereof shall be included in the price of other appropriate pay items.

Intermediate Work Zone Traffic Control - Separate payment will not be made for providing a person to meet the requirements of Section 105.14 of the Specifications. The cost thereof shall be included in the price of other appropriate pay items.

Payment will be made under:

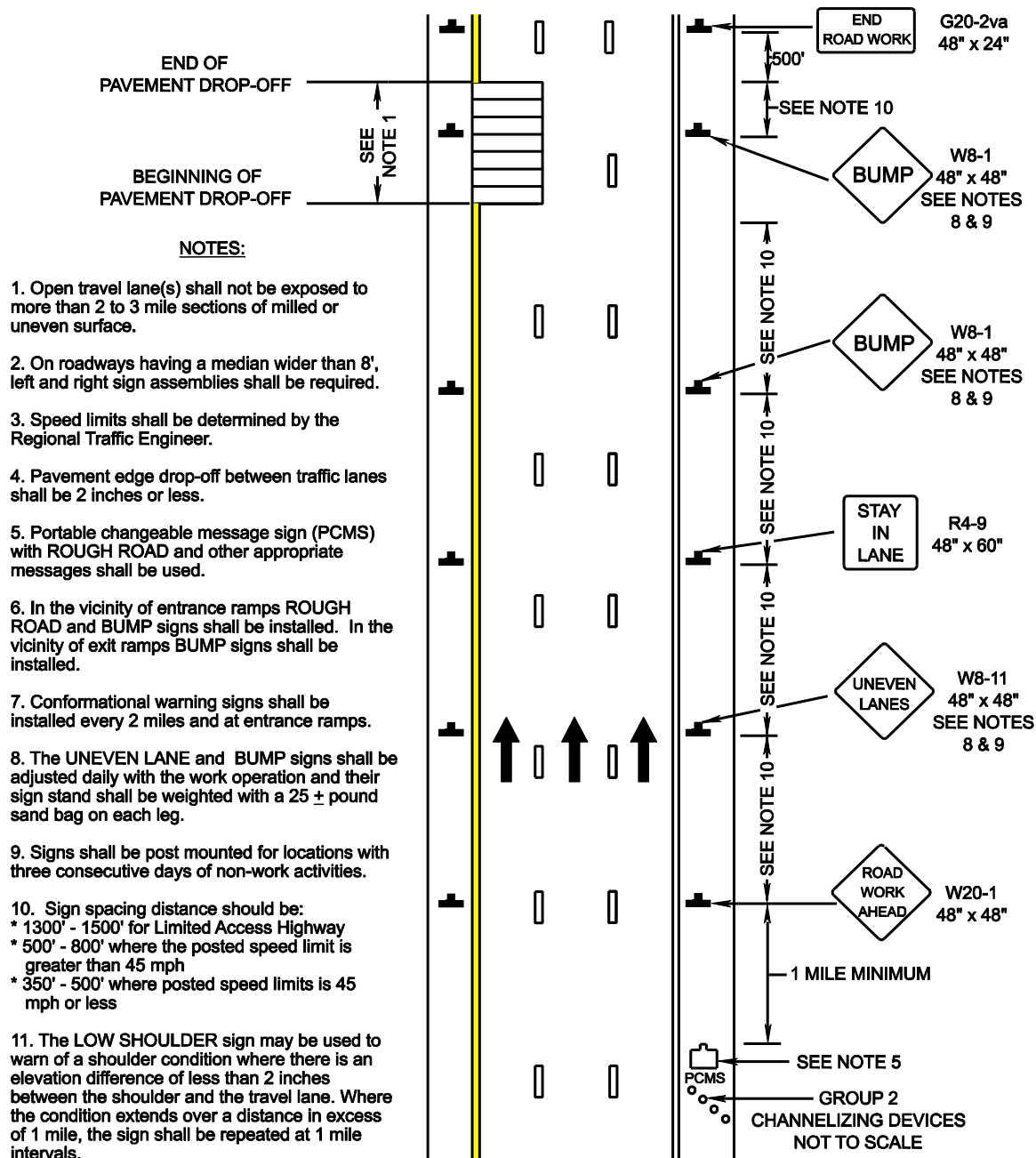
Pay Item

Eradication of existing pavement marking
Eradication of existing nonlinear pavement marking

Pay Unit

Linear foot 54105
Square foot 54106

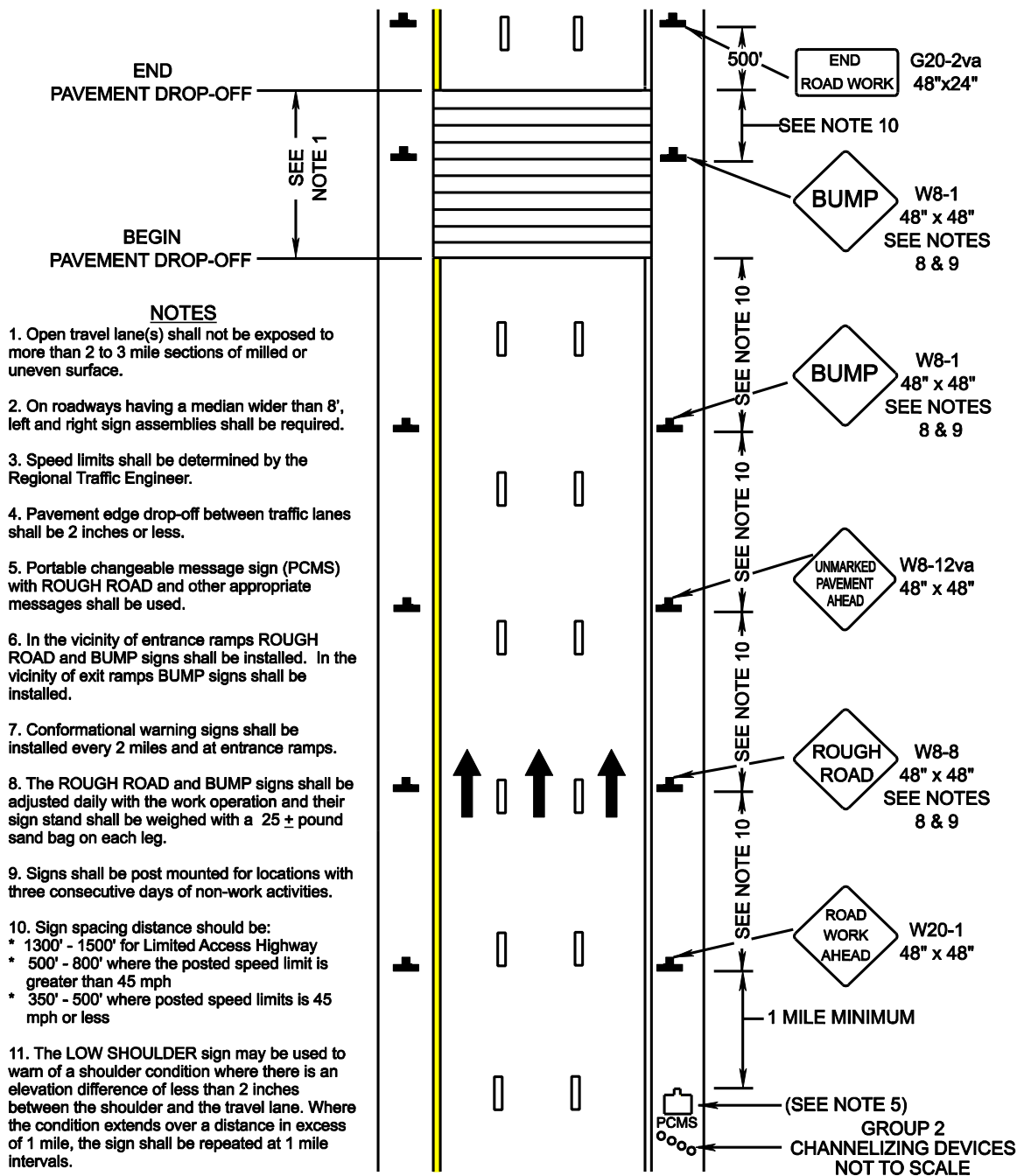
**Signing for
End of Daily Paving Operation
Applies To All Multi-Lane Highways**



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2007

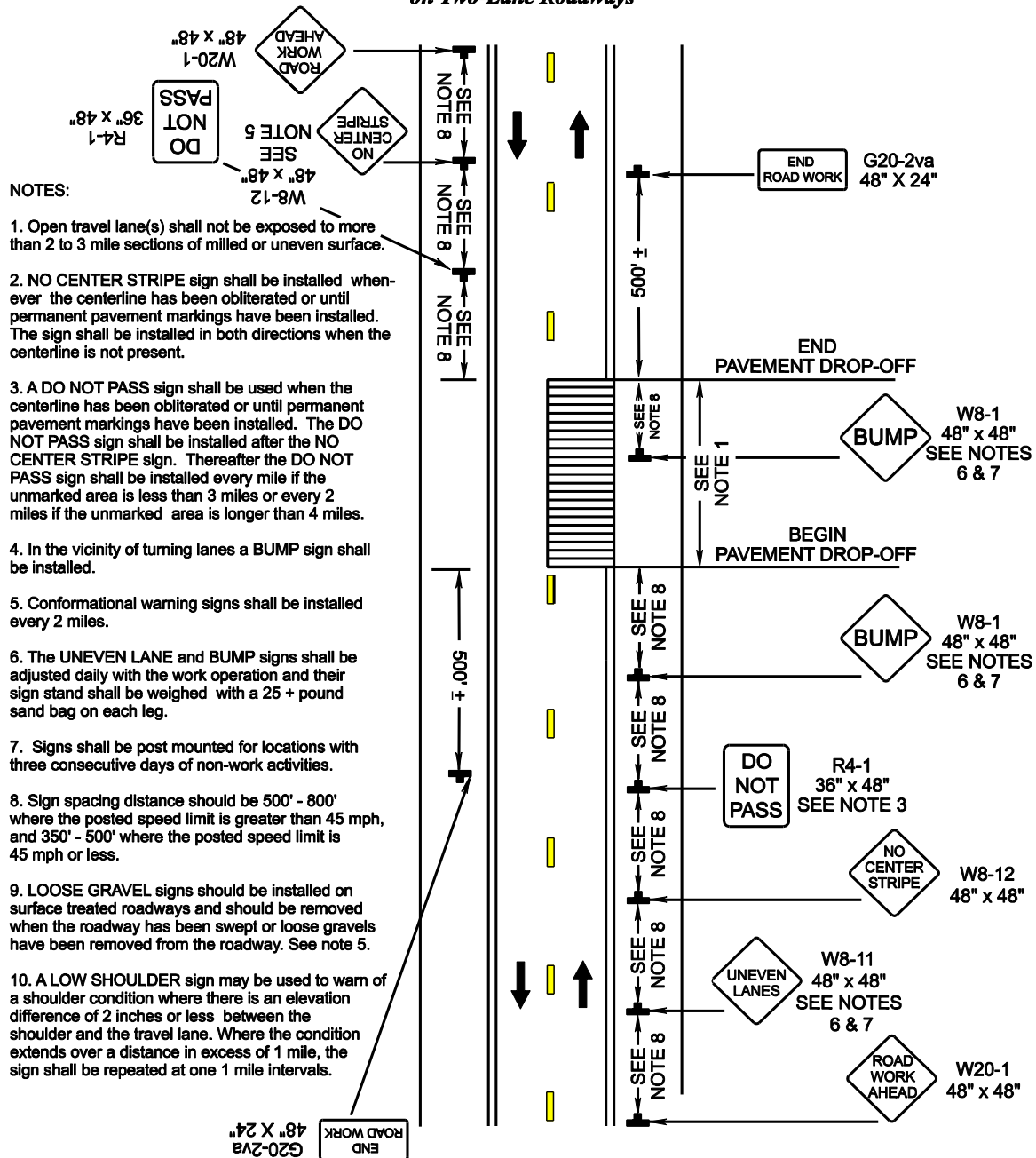
**Signing for
End of Daily Paving Operation
Applies To All Multi-lane Highways**



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2007

**Signing for
End of Daily Paving Operation
on Two-Lane Roadways**



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2007

GUIDELINES — PROJECTS REQUIRING COLD PLANING (MILLING) OF ASPHALT PAVEMENT. WHEN THIS PROVISION APPLIES INCLUDE THE FOLLOWING IN THE PROPOSAL: SS51502 Planing or Milling Pavement.

S515B00-1209

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
COLD PLANING (MILLING) ASPHALT CONCRETE OPERATIONS

November 16, 2009

DESCRIPTION

This work shall consist of the cold planing (milling) of flexible pavement (asphalt concrete) in preparation for pavement repair and/or pavement overlay. Planing or milling of asphalt concrete pavement shall be performed in accordance with Section 515 of the Specifications and the requirements herein.

Limitations of operations for planing asphalt concrete pavement shall be in accordance with the requirements of Section 108.02 of the Specifications, Contract specific requirements and as specified herein. The following general requirements shall be observed unless overridden by project specific Special Provision Copied Notes:

The following restrictions, based on the type of roadway, shall apply:

A. Limited Access Roadways with Posted Speed Limit of 55 Mph or Greater

The Contractor will be permitted to perform either regular pavement planing and pave such planed (milled) areas in accordance with the requirements herein and Section 315 of the Specifications, or the Contractor will be permitted to perform performance planing (milling) to the contract specified depth or as directed by the Engineer to provide a uniform sound substrate. Performance pavement planing may be performed in multiple lanes across the entire widths of the lanes where permitted by the individual schedules or provisions in the proposal.

The Contractor will be permitted to leave up to two miles of travel lane of planed surface open to the traveling public provided such planing (milling) is performed across the entire lane width. This length may be increased up to three miles at the Engineer's discretion. These same length restrictions shall apply in cases where multiple lane planing is permitted by the Engineer. Under no circumstance will the Contractor be permitted to plane a portion of the width of a travel lane, ramp or loop and leave it unpaved overnight. Abutting shoulders may also be planed during single and multiple lane planing operations.

Abutting lanes or shoulders shall be squared up regardless of planing depth prior to weekends; except as otherwise permitted herein, and prior to holidays or any temporary shutdowns. Where pavement planing is permitted for multiple lanes the Contractor will be responsible for installing all advance warning signage as detailed within the proposal as well as temporary traffic lane markings in accordance with the requirements of Section 704.03 of the Specifications with the exception that temporary pavement line markings shall be in accordance with the *Special Provision for Temporary Construction Pavement Markings* included in the Contract. The cost for such warning devices, signage and temporary pavement markings shall be included in the cost of other appropriate items.

Where simultaneous multiple lane planing is not permitted and where planing is to a depth of 2 inches or less, the Contractor shall have the option of planing the abutting lane or shoulder on alternate days or squaring up the planing operation at the end of each work shift. However, the

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abutting lane or shoulder shall be planed and squared up regardless of planing depth prior to weekends; except as otherwise permitted herein, and prior to holidays or any temporary shutdowns. Where the Contractor is directed to plane (mill) or grind to a depth greater than 2 inches in the Contract documents the Contractor shall square up the planing operation at the end of each workday or plane adjacent lanes including abutting shoulders within the same day for the length of the planing operation.

Where uneven pavement joints exist either transversely or longitudinally at the edges of travel lanes, the Contractor shall provide advance warning traffic control devices to inform the traveling public in accordance with the details provided in the plans for the scope of operation he is performing. The cost for such warning devices shall be included in the cost of other appropriate items.

The following additional restrictions shall apply:

- On roadways with a combination of 4 travel lanes and shoulders (i.e. 2 travel lanes and 2 shoulders) in one direction, all lanes and shoulders must be paved back before the weekend.
- On roadways with a combination of 5 or more travel lanes and shoulders (i.e. 3 lanes and 2 shoulders) in one direction 2500 feet of shoulder may be planed and left over the weekend provided the portion of planed shoulder left unpaved over the weekend is paved within 48 hours after the end of the weekend period.
- Ramps and loops shall be performance planed full width by the end of each workday. The Contractor shall pave all ramps and loops that have been performance planed before the weekend.
- Ramps and exits are to be performance planed so that a long longitudinal joint will not be left for vehicles to cross. Ramps and exits are to be performance planed to the extent that the joint crossed is transverse.

In the event an emergency or unforeseen circumstances such as equipment failure or breakdown develop during the Contractor's operations and such emergency or unforeseen circumstances within his control prevent the Contractor from squaring up the planed surface on adjacent lanes prior to a weekend or a holiday, any additional signage required to protect the traveling public shall be the Contractor's responsibility and at his expense.

Only approved mixes that have been verified in accordance with the requirements of Section 211.03(f) of the Specifications and have met the requirement for roller pattern density shall be placed on limited access roadways. Where test strips are required, areas shall be squared up at the end of each workday and no planed surface shall be left exposed.

B. All Other Roadways

The Contractor shall perform regular pavement planing to the contract specified depth(s) or as directed by the Engineer and pave such planed (milled) areas in accordance with the requirements herein and of Section 315 of the Specifications. At the Contractor's option he may perform performance planning.

Where the depth of pavement planing is 2 inches or less the Contractor shall plane only that amount of pavement that can be paved back within 96 hours of completion of planing that portion of roadway. Where the Contractor is directed to perform pavement planing to a depth greater than 2 inches in the Contract documents the Contractor shall square up the planing operation at

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the end of each workday. This requirement shall apply to both pavement and shoulders. Under no circumstance will the Contractor be permitted to plane a portion of the width of a travel lane, ramp or loop and leave it overnight.

When planing to a depth of 2 inches or less, the Contractor shall have the option of planing the abutting lane or shoulder on alternate days or squaring up the planing operation at the end of each work shift, however, the abutting lane or shoulder shall be planed and squared up regardless of planing depth prior to holidays or any temporary shutdowns. Roadways on which the roadway edges are planed shall be paved back within 10 days from the completion of the planing operation. Where uneven pavement joints exist either transversely or longitudinally at the edges of travel lanes, the Contractor shall provide advance warning traffic control devices to inform the traveling public in accordance with the details provided in the plans for the scope of operation he is performing.

Where planing to a depth of 2 inches or less, the Contractor will be permitted to perform performance planing (milling) with the requirement that the pavement be paved back within 14 calendar days of completion of planing that portion of roadway. The Contractor is required to perform the testing as specified in Section 515.04 of the Specifications for each work day. The additional traffic control devices required for the 14 calendar day pave back operation versus the traffic control devices required for 96 hour pave back operations shall be at the Contractor's expense.

Ramps and exits are to be planed so that a long longitudinal joint will not be left for vehicles to cross. Ramps and exits are to be planed to the extent that the joint crossed is transverse.

In the event an emergency or unforeseen circumstances such as equipment failure or breakdown develop due to the Contractor's operations that prevent the Contractor from squaring up the planed (milled) surface on adjacent lanes prior to a weekend or a holiday any additional signage required to protect the traveling public shall be the Contractor's expense.

GUIDELINES — ONLY FOR PROJECTS WHERE THE PROJECT MANAGER DETERMINES THAT ONLY INFORMAL PARTNERING WILL APPLY TO THE PROJECT.

S522B00-1109

**VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
INFORMAL PARTNERING**

January 14, 2008

I. DECLARATION AND DESCRIPTION

The Virginia Department of Transportation (VDOT) is firmly committed to the formation of a partnering relationship with the Contractor, all subcontractors, suppliers, FHWA representatives; where appropriate, other federal agencies, local government officials, utilities representatives, law enforcement and public safety officials, consultants, and other stakeholders to effectively and efficiently manage and complete each construction or maintenance contract to the mutual and individual benefits and goals of all parties. Partnering is an approach to fulfilling this commitment where all parties to the contract, as well as individuals and entities associated with or otherwise affected by the contract, willingly agree to dedicate themselves by working together as a team to fulfill and complete the construction or maintenance contract in cost effective ways while preserving the highest standards of safety and quality called for by the contract documents combined with the goals of on time/on budget completion. The approach must still allow for the fact that the members of the team share many common interests yet have differing authorities, interests, and objectives that must be accommodated for the project to be viewed as successful by all parties. It is recognized by VDOT that partnering is a relationship in which:

- Trust and open communications are encouraged and expected by all participants
- All parties move quickly to address and resolve issues at the lowest possible level by approaching problems from the perspectives and needs of all involved
- All parties have identified common goals and at the same time respect each other's individual goals and values
- Partners create an atmosphere conducive to cooperation and teamwork in finding better solutions to potential problems and issues at hand

II. INFORMAL PARTNERING STRUCTURE

It is the business intent of the Department that informal partnering will be required on this project, whereby the spirit and principles of partnering are practiced from onsite field personnel to executive level owners and employees. The VDOT Field Guide to Partnering available on the VDOT website <http://www.virginiadot.org/business/resources/partnerfinalallowres.pdf> will be the standard reference guide utilized to structure and guide partnering efforts. This guide will be systematically evaluated to incorporate better practices as our partnering efforts evolve. Of particular note is the need for effective and responsive communication between parties to the partnering relationship as emphasized by the Special Provision for Project Communication and Decision Making now included as standard provision in all contracts advertised by the Scheduling and Contract Division of VDOT.

Informal partnering need not require the services of a professional facilitator and may be conducted by the actual partnering participants themselves. Informal partnering, and more specifically the Partnering Charter, will not change the legal relationship of the parties to the Contract nor relieve either party from any of the terms of the Contract.

III. PROCEDURES

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2007

The following are general procedures for informal partnering and are not to be considered as inclusive or representative of procedural requirements for all projects. Participants shall consult the VDOT Field Guide for Partnering for assistance in developing specific guidelines to those efforts required for their individual projects.

At least 5 days prior to or in connection with the preconstruction conference the Contractor shall attend a conference with the Engineer at which time he and the Engineer shall discuss the extent of the informal partnering efforts required for the project, how these have been accommodated in the Contractor's bid and the identity of expectations and stakeholders associated with the project. Informal partnering efforts require the Department and the Contractor to mutually choose a single person from among their collective staffs, or a trained facilitator to be responsible for leading all parties through the VDOT Field Guide to Partnering and any subsequent partnering efforts.

Partnering Meetings During Project Construction

In informal partnering efforts the Contractor shall provide a location for regularly scheduled partnering meetings during the construction period. Such meetings will be scheduled as deemed necessary by either party. The Contractor and VDOT will require the attendance of their key decision makers, including subcontractors and suppliers. Both the Contractor and VDOT shall also encourage the attendance of affected utilities, concerned businesses, local government and civic leaders or officials, residents, and consultants, which may vary at different times during the life of the Contract. The Department and the Contractor are to agree upon partnering invitees in advance of each meeting. Follow-up partnering workshops may be held throughout the duration of the project as deemed necessary by the Contractor and the Engineer.

IV. MEASUREMENT AND PAYMENT

Informal Partnering, because the extent to which certain partnering activities are pursued is at the Contractor's option, and may vary according to project complexity, work history between the parties, project duration, the Contractor's own unique methods, means, and schedule to execute and complete the work, etc.; will not be paid for as a separate bid item but the all costs associated with informal partnering efforts for the duration of the work shall be considered inclusive and incidental to the cost of other appropriate items.

——**SELECT USE 500 SERIES SPs (SPECIAL PROVISIONS)**——

The following are Select Use Special Provisions. None have been through the Department's complete Specifications Committee review/comment/acceptance process and are not part of the Standard Specifications. They are to be considered as project-specific and may be subject to modifications required to meet specific project conditions or requirements for Federal funding. Anyone making modifications is responsible for obtaining the appropriate expertise in the discipline applicable to the modification. If modifications are made the date must also be changed to reflect the current date. Please send a copy of the modified special provision with the new date and specific project number to David.Gayle@VDOT.Virginia.gov so it may be added to the Specifications Stockpile.

SU503000A RW Monument (Contractor Stkout).doc**GUIDELINES – FOR PROJECTS REQUIRING THE CONTRACTOR TO PROVIDE THE SETTING OF RIGHT-OF WAY MONUMENTS AND FINAL BOUNDARY STAKEOUT.**

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
RIGHT-OF-WAY MONUMENTATION AND FINAL BOUNDARY STAKEOUT

December 2, 2009a

The number of **right-of-way monuments** to be set for this contract are **fill-in**.

The Contractor shall furnish right-of-way monuments and ensure the setting of such monuments and final boundary stakeout is performed by or under the direct responsibility, control and personal supervision of a Land Surveyor currently licensed and able to practice in the Commonwealth of Virginia.

SECTION 503 is added to the Specifications as a complete section as follows:

SECTION 503—RIGHT-OF-WAY MONUMENTS

503.01—Description

This work shall consist of furnishing and setting right-of-way monuments at locations shown on the plans or as designated by the Engineer in accordance with the requirements of the Standard Drawings and the Department's Survey Manual.

503.02—Materials

Right-of-way monuments shall conform to the requirements of Section 219 of the Specifications.

503.03—Procedures

Monuments shall be placed at locations designated on the plans, by the Engineer or as required by the Department's Survey Manual

Excavation shall be kept to the minimal for installation so as minimize the disturbance of in-situ material and compaction and backfill efforts. Backfill shall be thoroughly compacted in a manner that will not displace the monument.

503.04—Measurement and Payment

Right-of-way monuments will be measured in units of each, complete-in-place, and will be paid for at the contract unit price per each. This price shall include furnishing, installing, excavating, backfilling and compaction.

Payment will be made under:

Pay Item

Pay Unit

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A stylized logo for the year 2007, with the numbers in a blue and yellow gradient, outlined in blue.

Right-of-way monument (Standard)

Each

SECTION 517—CONTRACTOR CONSTRUCTION SURVEYING of the Specifications is amended as follows:

Section 517.02—General Requirements is amended to add the following:

- (e) location, final boundary stakeout, and final right of way monumentation

Section 517.04(i) Right of way and boundary stakeout affecting property ownership is amended to replace the last sentence with the following:

Final boundary stakeout shall be performed in accordance with the Department's Survey Manual by or under the direct responsibility, control and personal supervision of a Land Surveyor currently licensed and able to practice in the Commonwealth of Virginia.

Section 517.04(j) Locating and setting right-of-way monuments is replaced with the following:

- (j) **Locating and setting right-of-way monuments:** Final right of way monumentation shall be performed in accordance with the Department's Survey Manual and Section 503 herein by or under the direct responsibility, control and personal supervision of a Land Surveyor currently licensed and able to practice in the Commonwealth of Virginia.

Hub and tack points for RM-1 right-of-way monuments shall be set in accordance with the Road and Bridge Standards. The Contractor shall furnish RM-2 right-of-way monuments and locator posts. The Department will furnish the required caps for installation by the Contractor. Surveying work and drawings shall be in accordance with the requirements of *Sample Figure 4 in Chapter 8—Construction Surveys* of the Survey Manual. Where required by the Department's Survey Manual all drawings, layouts, field notes, documentation, etc shall be signed and sealed by the licensed Land Surveyor. The Certified record drawings, field notes, and computations shall be submitted to the Engineer.

Upon completion of the project, the Contractor shall provide the Engineer with all original surveying drawings, field notes, layouts, computations, sketches and drawings in the format approved by the Engineer. All electronic copies submitted shall be in a format fully compatible with the Department's existing computer hardware and software.

Section 517.05(h) Right of way and boundary stakeout affecting property ownership is amended to replace the last sentence with the following:

Final boundary stakeout shall be performed in accordance with the Department's Survey Manual by or under the direct responsibility, control and personal supervision of a Land Surveyor currently licensed and able to practice in the Commonwealth of Virginia.

Section 517.05(i) Setting right-of-way monuments is replaced with the following:

- (i) **Setting right-of-way monuments:** Final right of way monumentation shall be performed in accordance with the Department's Survey Manual and Section 503 herein by or under the direct responsibility, control and personal supervision of a Land Surveyor currently licensed and able to practice in the Commonwealth of Virginia.

Hub and tack points for RM-1 right-of-way monuments shall be set in accordance with the Road and Bridge Standards. The Contractor shall furnish RM-2 right-of-way monuments and locator posts. The Department will furnish the required caps for installation by the Contractor. Surveying work and drawings shall be in accordance with the requirements of *Sample Figure 4 in Chapter 8—Construction Surveys* of the Survey Manual. Where required by the Department's Survey Manual all drawings, layouts, field notes, documentation, etc shall be signed and sealed by the licensed Land Surveyor. Certified record drawings, field notes, and computations shall be submitted to the Engineer.

Upon completion of the project, the Contractor shall provide the Engineer with all original surveying drawings, field notes, layouts, computations, sketches and drawings in the format approved by the Engineer. All electronic copies submitted shall be in a format fully compatible with the Department's existing computer hardware and software.

SU512000A MOT Lump Sum

GUIDELINES — FOR PROJECTS WITH SIMPLE MAINTENANCE OF TRAFFIC REQUIREMENTS WHERE THE CONTRACTOR CAN EASILY DETERMINE WHAT HE WILL NEED AND ACCURATELY ESTIMATE THE COST (EXAMPLE: BRIDGE REHAB WHERE TRAFFIC IS SIMPLY CHanneled TO ONE SIDE UNTIL WORK ON THE OPPOSITE SIDE IS COMPLETED. CONTACT SCHEDULING AND CONTRACT SPEC SECTION FOR GUIDANCE IN OTHER USES AND MODIFICATIONS.) DO NOT ADD EXPENSIVE AND/OR DIFFICULT TO ESTIMATE ITEMS SUCH AS TEMPORARY SIGNALIZATION AS ITEMS INCLUDED IN THIS COST. SUCH ITEMS MUST BE HANDLED WITH SEPARATE PAY ITEMS IN SECTION 512 AS APPROPRIATE.

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
SECTION 512—MAINTAINING TRAFFIC (LUMP SUM)

October 2, 2009ac

SECTION 512 of the Specifications is amended as follows:

Section 512.03—Procedures is amended to add the following:

The Contractor shall submit a plan, sequenced with his plan of operations, to the Engineer for maintenance of traffic for his review prior to commencement of work. The plan shall be designed and implemented in accordance with the *Virginia Work Area Protection Manual*, the *MUTCD* and the Department generated project-specific temporary traffic control plan or requirements provided in the Contract Documents. When the Department provides a sequence of construction in the Contract documents the plans or estimated quantities for maintenance of traffic items are for estimating purposes only.

Section 512.04—Measurement and Payment is replaced with the following:

Maintenance of traffic including flagger service, pilot vehicles, electronic arrows, warning lights, channelizing devices, traffic barrier service, traffic barrier service guardrail terminals, impact attenuator service, construction pavement markings, construction pavement message markings, temporary pavement markers, eradication of existing pavement markings, temporary detours, aggregate material, Type III barricades, construction signs, and truck mounted attenuators will be paid for on a lump sum basis wherein no measurement will be made. The Contractor's price bid shall include, but not be limited to; providing a person to meet the basic work zone traffic control and intermediate work zone traffic control requirements of Section 105.14 of the Specifications; furnishing, placing, maintaining, replacing, relocating, adjusting, aligning, removing, flagger service, pilot vehicles, warning lights, electronic arrow, channelizing devices, traffic barrier service, traffic barrier service guardrail terminals, impact attenuator service, construction pavement markings, construction pavement message markings, temporary pavement markers, eradication of existing pavement markings, temporary detours, aggregate material, Type III barricades, construction signs, truck mounted attenuators, and all labor, material and equipment incidental to completing this work in accordance with the *Virginia Work Area Protection Manual* and traffic engineering guidelines and principles. Site specific adjustments to maintenance of traffic operations specified by the *Virginia Work Area Protection Manual* and the *MUTCD* such as quantity, location, or spacing of traffic control devices within construction limits or on any approaches to the project, required by the Engineer to improve traffic operation or safety shall be considered an alteration to the character of work in accordance with the provisions of Section 104.02 of the Specifications.

The Contractor will be paid 30-percent of the lump sum bid price upon satisfactory installation of the required maintenance of traffic items to commence construction operations and active prosecution of the work. Contingent upon active pursuit of the work, the Contractor will receive monthly payments for maintenance of traffic based on the daily dollar amount of the bid price for

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maintenance of traffic until 90-percent of the unit bid price is paid. The remaining 10 percent will be paid for after all maintenance of traffic items are removed at final acceptance of the Contract.

Payment will be made under:

Pay Item**Pay Unit**

Maintenance of traffic

Lump sum

——STANDARD 500 SERIES SSs (SUPPLEMENTAL SPECIFICATIONS)——

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2007

GUIDELINES — FOR USE WHEN UNDERDRAINS ARE REQUIRED.

SS50101-0310

January 25, 2010

VIRGINIA DEPARTMENT OF TRANSPORTATION
2007 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS**SUPPLEMENTAL SECTION 501—UNDERDRAINS****SECTION 501—UNDERDRAINS** of the Specifications is amended as follows:

501.04—Measurement and Payment is amended to replace the first through fourth paragraphs with the following:

Underdrains and combination underdrains will be measured in linear feet, complete-in-place, and will be paid for at the contract unit price per linear foot. The contract unit price for underdrains installed at depths greater than those shown in the standard drawings will be increased 20 percent for each 1-foot increment of increased depth. No adjustment in the contract unit price will be made for an increment of depth of less than 6 inches. When drains are to be placed under pavement that is not constructed under the Contract, the contract unit price shall include removing and replacing pavement.

Outlet pipe for underdrains will be measured in linear feet, complete-in-place, and will be paid for at the contract unit price per linear foot.

These prices shall include furnishing and installing geotextile drainage fabric, excavating, furnishing and installing aggregate, backfilling, compaction, splicing, inspection ports, if any, disposing of surplus and unsuitable materials, and installing outlet markers.

GUIDELINES — ALL PROJECTS. BEGIN USE WITH THE SEPTEMBER 2009 ADVERTISEMENT – CONTINUE USE UNTIL FURTHER NOTICE.

SS51202-0909

June 11, 2009

VIRGINIA DEPARTMENT OF TRANSPORTATION
2007 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS

SUPPLEMENTAL SECTION 512—MAINTAINING TRAFFIC

SECTION 512—MAINTAINING TRAFFIC of the Specifications is amended as follows:

Section 512.03(a) Signs is amended to replace the last paragraph with the following:

When construction signs are covered to prevent the display of the message, the entire sign shall be covered with silt fence or other materials approved by the Engineer such that no portion of the message side of the sign shall be visible. Plywood shall be used on ground-mounted construction signs only. Attachment methods used to attach the covering material to the signs shall be of a durable construction that will prevent the unintentional detachment of the material from the sign. At no times shall a construction sign and/or post be rotated to prevent the display of the message. In addition, the posts where the signs are being covered shall have two ED-3 Type II delineators mounting vertically on the post below the signs at a height of 4 feet to the top of the topmost delineator. The bottom delineator shall be mounted 6 inches below the top delineator.

Section 512.03(b) Flagger Service and Pilot Vehicles is amended to replace the last paragraph with the following:

Portable traffic control signals conforming to the requirements of Section 512.03(h)2 of the Specifications may be used in lieu of flagger service when specified or approved by the Regional Traffic Engineer. When portable traffic control signals are used in lieu of flagger service, the portable traffic control signals will be measured and paid for separately.

Section 512.03(e)b. Group 2 devices is amended to replace the first paragraph with the following:

- b. **Group 2 devices** shall be drums or vertical panels. Drums shall be round, or partially round with no more than one flat side; made from plastic; have a minimum height of 36 inches, have a cross-sectional width no less than 18 inches in any direction; and conform to the requirements of the *Virginia Work Area Protection Manual*. Drums shall be designed to allow for separation of ballast and drum upon vehicular impact but not from wind and vacuum created by passing vehicles. Drums of two-piece design, i.e., drum and associated base, shall utilize sufficient amounts of enclosed sand at the base in accordance with the manufacturer's recommendations to provide stable drum support. The base shall be not greater than 5 inches in height. Two-piece drums may also utilize a flared drum foundation and collar of not more than 5 inches in height and of suitable shape and weight to provide stable support. One-piece drums may be used provided they comply with these above requirements.

Section 512.03 Procedures is amended to add (r) **Work Zone Traffic Control** as the following:

- (r) **Work Zone Traffic Control:** The Contractor shall provide individuals trained in Work Zone Traffic Control in accordance with the requirements of Section 105.14 of the Specifications.

Section 512.04 Measurement and Payment is amended to add the following:

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Basic Work Zone Traffic Control – Separate payment will not be made for providing a person to meet the requirements of Section 105.14 of the Specifications. The cost thereof shall be included in the price of other appropriate pay items.

Intermediate Work Zone Traffic Control - Separate payment will not be made for providing a person to meet the requirements of Section 105.14 of the Specifications. The cost thereof shall be included in the price of other appropriate pay items.

Section 512.04 Measurement and Payment is amended to replace the pay item and corresponding pay unit for “**Eradication of existing pavement markings**” with the following:

Eradication of existing pavement markings will be measured in linear feet of a 6-inch width or portion thereof as specified herein. Widths that exceed a 6-inch increment by more than 1/2 inch will be measured as the next 6-inch increment. Measurement and payment for eradication of existing pavement markings specified herein shall be limited to linear pavement line markings. Eradication of existing pavement markings will be paid for at the contract unit price per linear foot. This price shall include removing linear pavement line markings and disposing of residue.

Eradication of existing nonlinear pavement markings will be measured in square feet based on a theoretical box defined by the outermost limits of the nonlinear pavement marking. Nonlinear pavement markings shall include but not be limited to stop bars, arrows, images and messages. Eradication of existing nonlinear pavement markings will be paid for at the contract unit price per square foot. This price shall include removing nonlinear pavement markings and disposing of residue.

Payment will be made under:

Pay Item	Pay Unit
Eradication of existing pavement marking	Linear foot 54105
Eradication of existing nonlinear pavement marking	Square foot 54106

GUIDELINES — USE ON PROJECTS REQUIRING A FIELD OFFICE.

SS51401-0609

March 6, 2009

VIRGINIA DEPARTMENT OF TRANSPORTATION
2007 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS**SUPPLEMENTAL SECTION 514—FIELD OFFICE****SECTION 514—FIELD OFFICE** of the Specifications is amended as follows:**Section 514.02—Procedures** of the Specifications is amended to replace (j) with the following:(j) **Miscellaneous Items:** The field office shall also include the following:

1. A certification that the office is free of asbestos and other hazardous material.
2. A broom, dust pan, mop, mop bucket, general cleaning supplies, and trash bags.
3. An all weather parking area for either twelve vehicles (for a Type I office) or six vehicles (for either a Type II or a Type III office), and all weather graveled access to the public roadway. The Contractor shall maintain the parking area and graveled access such that it is passable with a compact sedan without causing vehicular damage. The parking lot shall be sufficiently lighted to illuminate all areas of the lot.
4. Security measures for the Field Office during other than normal working hours shall be equivalent to that used by the Contractor for his job site and office facilities.

GUIDELINES— PROJECTS REQUIRING PLANING OR MILLING OF FLEXIBLE OR RIGID PAVEMENT. WHEN THIS PROVISION APPLIES TO ASPHALT MAINTENANCE SCHEDULES INCLUDE THE FOLLOWING IN THE PROPOSAL: S515B00 Cold Planing Asphalt Operations

SS51502-1209

January 13, 2010

VIRGINIA DEPARTMENT OF TRANSPORTATION
2007 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS

SUPPLEMENTAL SECTION 515—PLANING OR MILLING PAVEMENT

SECTION 515—PLANING PAVEMENT of the Specifications is completely replaced with the following:

SECTION 515—PLANING OR MILLING PAVEMENT

515.01—Description

This work shall consist of planing (milling) of rigid or flexible pavement to the designated depth specified in the plans or other Contract documents in preparation for pavement repair or pavement overlay. For the purposes of this section, rigid pavement shall mean hydraulic cement concrete pavement or hydraulic cement concrete surfaced pavements and flexible pavement shall mean asphalt concrete or asphalt concrete surface pavements. Planing as used herein is also referred to as milling. Milled cuttings shall be removed and disposed of by the Contractor in accordance with the requirements of Section 106.04 of the Specifications or used in the work if so directed or permitted in the Contract or directed by the Engineer.

515.02—Equipment

Planing shall be performed with a pavement planing or pavement grinding machine of a type that has operated successfully on work comparable to that specified in the Contract. Milling and cold planing equipment shall be capable of accurately cutting to the length, width, depth and typical section specified in the Contract in flexible pavement or rigid pavement while leaving a uniformly cut or ground roadway surface capable of handling traffic prior to overlay placement. The milling equipment shall not damage the underlying pavement surface. The milling machine shall be equipped with an automatic grade control system that will control the longitudinal profile and cross slope of the existing pavement milled surface as the milling operations proceed. The ground speeds of the machine and the cutting equipment shall be independent. The machine shall have a self-contained water system for the control of dust and fine particles. The width of the machine shall allow for the passage of controlled public traffic. The machine shall have a dust collection system or have a system to minimize dust created by the planing (milling) operation from escaping into the atmosphere.

The Contractor shall continuously monitor the cutting or grinding head of the machine so as to ensure and maintain the creation of a uniformly textured milled surface. Equipment and vehicles in use under traffic shall be equipped according to the requirements of the Work Area Protection Manual.

515.03—Procedures

Limitations of operations for planing operations shall be in accordance with the requirements of Section 108.02 of the Specifications and as specified in the Contract.

The Contractor may perform either regular planing or performance based planing at his option unless otherwise specified in the Contract. Unless otherwise directed by the Engineer, the finished

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surface for regular pavement planing and performance planing shall have a tolerance of plus or minus 1/4 inch per foot between any two contacts of the resultant surface and the testing edge of a 10-foot straightedge.

The finished surface macrotexture for performance planing shall have a pavement macrotexture MTD of less than 2.0 millimeters. Testing for performance pavement planing shall be as described herein

Irregularities and high spots shall be eliminated. The pavement surface shall be milled, ground or planed to the designated grade or gradient as specified on the plans, or where not specified as a grade, shall parallel that of the existing roadway. transversely, the cross slope shall be planed to approximately 1/4 inch per foot or as directed by the Engineer. Superelevated curves shall be planed as directed by the Engineer. Where the pavement is to be resurfaced, a 1-inch shoulder shall be cut along the gutter line to eliminate the necessity of feathering the edge of the new surface. Payment for providing the 1-inch shoulder shall be based on the total square yards of removed material regardless of the variable depth of the pass.

The finished planed surface shall be true to grade, free from gouges, grooves, ridges, soot, oil film, and other imperfections and shall have a uniformly textured appearance suitable as a riding surface.

Humps and depressions that exceed the specified tolerances and require additional grinding or planing shall be subject to correction or replacement as directed by the Engineer at no additional cost to the Department.

The Contractor shall ensure positive drainage is provided for all planed surfaces in accordance with the requirements of Section 315.05(c) of the Specifications. When planing curb and gutter sections the Contractor shall endeavor to work with existing drainage and grade to maintain positive flow. In the event of significant buildup of standing water the Contractor may be required to erect signage to warn motorists, sweep the roadway to vacate the water, or in extreme cases, close the lane to traffic until proper drainage of the planed surface can be restored.

Temporary transverse pavement-wedge tie-ins shall be constructed where planed existing pavement is to remain temporarily without overlay to the extent allowed or required herein, in Section 315 of the Specifications, elsewhere in the contract documents, or by the Engineer. Each tie-in shall be constructed no less than 10 feet in length for every inch of depth of pavement planing performed and shall consist of a mix that is suitable for a riding surface that provides a smooth transition between planed existing pavement and existing pavement or bridge decks. Such tie-ins shall be constructed prior to the planed surface being opened to traffic.

When planing to a depth of 2 inches or less at a bridge, the planed (milled) surface at the bridge may be left unpaved for up to 10 days.

Additional or other limitations and conditions to planning operations shall be as specified and applicable to the Contract.

515.04—Performance Pavement Planing Testing

This section gives testing procedures and criteria for opening a section of performance planed pavement on a limited access roadway as specified herein to public traffic. The test procedure performed by the Contractor will measure the mean texture depth (MTD) of the resultant macrotexture surface after planing operations have been performed. The measurement for performance planed surface texture shall be conducted in accordance with the requirements of ASTM E965 using a volumetric technique. The Contractor shall randomly select 10 locations at each site. Each individual location will be tested and the average MTD of the entire 10 locations per site determined. Prior to opening a lane or roadway to traffic the average MTD of the

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performance planed site shall be less than 2.0 millimeters and the upper limit for any one MTD measurement shall not exceed 3.10 millimeters in order for that section to be exposed to traffic.

515.05—Measurement and Payment

Where pavement is to be planed to a uniform depth, planing will be measured in square yards of removed pavement of the surface area to the depth(s) specified in the contract documents. The Engineer may direct the depth to be adjusted during the initial pass $\pm \frac{1}{2}$ inch due to field conditions at no additional cost, except where such adjustment constitutes a changed condition as explained herein. The planed area is defined as the actual length and width of the planed pavement surface visually verified and accepted by the Engineer for payment. If scabbing or laminations still exist after planing to the maximum potential depth of the initial pass, the Engineer may direct the Contractor to perform additional passes or to increase the depth beyond the maximum potential depth of the initial pass. Such additional passes or increased depth beyond the maximum potential depth of the initial pass will also be measured and paid for in square yards for the depth authorized by the Engineer. Such additional depth passes (beyond the maximum potential depth of the original pass) will not be adjusted, as in averaging or as a percentage of original depth or maximum potential depth of the initial pass, to achieve final measurement or payment. In the event the authorized adjustment of the $\frac{1}{2}$ inch for field conditions by the Engineer changes the requirements of the "square up" provisions (in excess of 2 inches), this will be considered a changed condition in accordance with the provisions of Section 104.02 of the Specifications.

Where planing is variable depth and used to tie into existing structures such as curbs and combination curb and gutters and at bridges, except in cases as mentioned below, such tie-in planing will be measured in square yards of removed pavement for the full surface area (the actual length and width of the planed pavement surface visually verified and accepted by the Engineer for payment) within the range of depth specified in the contract documents. **Note:** The Engineer may direct the depth to be adjusted during the initial pass $\pm \frac{1}{2}$ inch of the specified depth due to field conditions such as scabbing or delamination at no additional cost, except where such adjustment constitutes a changed condition as explained herein.

If scabbing or laminations still exist after planing to the maximum potential depth of the initial tie-in planing pass, the Engineer may direct the Contractor to perform additional passes or to increase the depth beyond the maximum potential depth of the initial **pass**. Additional passes or depths beyond the maximum potential depth of the initial **pass**, authorized by the Engineer, will also be measured and paid for in square yards of removed pavement of the additional surface area for the depth authorized by the Engineer. Areas of variable depth tie-in planing will not be adjusted, as in averaging or as a percentage of original depth, to achieve final measurement or payment. In the event the authorized adjustment of the $\frac{1}{2}$ inch for field conditions by the Engineer changes the requirements of the "square up" provisions, this will be considered a changed condition in accordance with Section 104.02 of the Specifications.

Planing performed to tie-in overlaid pavement to existing pavement or bridge decks that is determined by the Engineer to be a part of the mainline planing operations will not be measured for separate payment, the cost of which, shall be included in the price bid for the appropriate depth range of Flexible or rigid pavement planing.

This price shall include furnishing vehicles, labor, tools, materials, incidentals, safety equipment, warning devices, and removing and disposing of existing pavement.

Payment will be made under:

Pay Item

Pay Unit

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Flexible pavement planing (0-2" depth)	Square yard
Flexible pavement planing (Above 2"-4" depth)	Square yard
Flexible pavement tie-in planing (0-2" depth)	Square yard
Flexible pavement tie-in planing (Above 2"-4" depth)	Square yard
Flexible pavement planing (over 4" depth)	Square yard
Rigid pavement planing (0-2" depth)	Square yard
Rigid pavement tie-in planing (0-2" depth)	Square yard

GUIDELINES — PROJECTS THAT REQUIRE OR MAY REQUIRE FORMAL PARTNERING.

SS52200-0708

January 14, 2008

VIRGINIA DEPARTMENT OF TRANSPORTATION
2007 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS**SUPPLEMENTAL SECTION 522—PARTNERING****I. DECLARATION AND DESCRIPTION**

The Virginia Department of Transportation (VDOT) is firmly committed to the formation of a partnering relationship with the Contractor, all subcontractors, suppliers, FHWA representatives; where appropriate, other federal agencies, local government officials, utilities representatives, law enforcement and public safety officials, consultants, and other stakeholders to effectively and efficiently manage and complete each construction or maintenance contract to the mutual and individual benefits and goals of all parties. Partnering is an approach to fulfilling this commitment where all parties to the contract, as well as individuals and entities associated with or otherwise affected by the contract, willingly agree to dedicate themselves by working together as a team to fulfill and complete the construction or maintenance contract in cost effective ways while preserving the highest standards of safety and quality called for by the contract documents combined with the goals of on time/on budget completion. The approach must still allow for the fact that the members of the team share many common interests yet have differing authorities, interests, and objectives that must be accommodated for the project to be viewed as successful by all parties. It is recognized by VDOT that partnering is a relationship in which:

- Trust and open communications are encouraged and expected by all participants
- All parties move quickly to address and resolve issues at the lowest possible level by approaching problems from the perspectives and needs of all involved
- All parties have identified common goals and at the same time respect each other's individual goals and values
- Partners create an atmosphere conducive to cooperation and teamwork in finding better solutions to potential problems and issues at hand

II. PARTNERING STRUCTURE

It is the business intent of the Department that partnering will be required on all projects, either in the formal sense or informally where the spirit and principles of partnering are practiced from onsite field personnel to executive level owners and employees. The VDOT Field Guide to Partnering available on the VDOT website <http://www.virginiadot.org/business/resources/partnerfinalallowres.pdf> will be the standard reference guide utilized to structure and guide both types of partnering efforts. This guide will be systematically evaluated to incorporate better practices as our partnering efforts evolve. Of particular note is the need for effective and responsive communication between parties to the partnering relationship as emphasized by the Special Provision for Project Communication and Decision Making now included as standard provision in all contracts advertised by the Scheduling and Contract Division of VDOT.

Where formal partnering is specifically required as a pay item in the contract, partnering efforts shall be promoted by a professional facilitator trained in partnering principles. Partnering, and more specifically the Partnering Charter, will not change the legal relationship of the parties to the Contract nor relieve either party from any of the terms of the Contract.

Informal partnering need not require the services of a professional facilitator and may be conducted by the actual partnering participants themselves. Informal partnering will also not change the legal

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relationship of the parties to the Contract nor relieve either party from any of the terms of the Contract.

III. PROCEDURES

The following are general procedures for partnering and are not to be considered as inclusive or representative of procedural requirements for all projects. Participants shall consult the VDOT Field Guide for Partnering for assistance in developing specific guidelines to those efforts required for their individual projects.

A. Formal Partnering

Pre-Partnering Meeting

The Contractor's Project Manager or designee and the VDOT District Administrator or designee shall mutually schedule a Pre-Partnering meeting prior to the Partnering Workshop as soon as possible after the Department's award of the contract. During the Pre-Partnering meeting these individuals or their representatives shall develop an agenda for the workshop, select a facilitator, decide on those individuals and entities associated with or affected by the Construction contract that should be invited to participate and extend appropriate notice in sufficient time to arrange attendance and meaningful participation. The selection of the facilitator must be mutually acceptable to both the Department and the Contractor.

Partnering Workshop

Generally, the Partnering Workshop will be scheduled after the pre-construction conference. Formal partnering efforts require that the Contractor be responsible for employing a facilitator trained in the recognized principles of partnering to conduct the first preconstruction partnering workshop, known as the Formal Partnering Kick-Off Workshop. The facilitator will lead all parties through the Partnering Workshop agenda and the VDOT Field Guide to Partnering during the kick-off workshop. The extent of the formal partnering preconstruction workshop and agenda will be predicated on project complexity, size, number of potential stakeholders, potential outstanding issues, and local needs, etc. The Formal Partnering Kick-Off Workshop will establish the specific frequency and general schedule for further Partnering meetings.

B. Informal Partnering

Where informal partnering is applicable, at least 5 days prior to or in connection with the preconstruction conference the Contractor shall attend a conference with the Engineer at which time he and the Engineer shall discuss the extent of the informal partnering efforts required for the project, how these have been accommodated in the Contractor's bid and the identity of expectations and stakeholders associated with the project. Informal partnering efforts require the Department and the Contractor to mutually choose a single person from among their collective staffs, or a trained facilitator to be responsible for leading all parties through the VDOT Field Guide to Partnering and any subsequent partnering efforts.

Partnering Meetings During Project Construction

In either formal or informal partnering efforts the Contractor shall provide a location for regularly scheduled partnering meetings during the construction period. Such meetings will be scheduled as deemed necessary by either party. The Contractor and VDOT will require the attendance of their key decision makers, including subcontractors and suppliers. Both the Contractor and VDOT shall also encourage the attendance of affected utilities, concerned businesses, local government and civic leaders or officials, residents, and consultants, which may vary at different times during the life of the Contract. The Department and the Contractor are to agree upon partnering invitees in advance of

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each meeting. Follow-up partnering workshops may be held throughout the duration of the project as deemed necessary by the Contractor and the Engineer.

IV. MEASUREMENT AND PAYMENT

Formal Partnering (Kick-Off Workshop) will be measured per day and will be paid for at the contract unit price per day which price shall include providing the partnering facilities, professional facilitation, and other miscellaneous costs including copying fees and refreshments. Subsequent follow-up partnering workshops are not considered a pay item, unless the Contractor and the Engineer mutually agree in advance it is appropriate to hold additional formally facilitated workshop(s), in which case the method of measurement and basis of payment will be the same as for the Formal Partnering (Kick-Off Workshop). The maximum daily value for this pay item shall not exceed \$5,000 unless otherwise specified.

In Informal Partnering, because the extent to which certain partnering activities are pursued is at the Contractor's option, and may vary according to project complexity, work history between the parties, project duration, the Contractor's own unique methods, means, and schedule to execute and complete the work, etc., informal partnering shall not be paid for as a separate bid item but the all costs associated with informal partnering efforts for the duration of the work shall be considered inclusive and incidental to the cost of other appropriate items.

Payment will be made under:

Pay Item	Pay Unit
Formal Partnering	Day

